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Listing first 45 summaries
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ААМ85584	$\vdash$	ABB54266	AAW89586	AAW89597	AAW89614	AAY58020	AAY78512	AAY39263	AAW10688	AAU76552	AAB50539	AAB35129	AAB48286	AAB74126	AAB74121	AAY69202	AAY70827	AAW87809	AAW87804	AAY05435	AAY34150	AAR71406	AAY34149	AAY70822	AAY70818	AAY70820	AAY70816	AAY90736	AAY90738	AAY90735	AAU76551	3512	AAB74125	AAB74122
Human immune/haema	Novel human diagno		llus c	llus	llus c	Aspergillus sojae	e	gion	g	Human Bax polypept	Human Bax protein	Human Bax. Homo s	Human Bax protein.	Human bcl-2 associ	Human bcl-2 associ	Amino acid sequenc	Human BAX alpha pr	A human Bcl-2 asso	A human Bcl-2 asso	Human BAX protein	Human wild-type Ba	Human Bax protein.	truncated B	neuroprotec	neuroprotec	neuroprotec	Human neuroprotect	Human BAX amino ac	ап	Apoptotic regulati	Murine Bax polypep	Bax. Mus	Murine bcl-2 assoc	Murine bcl-2 assoc

## ALIGNMENTS

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RESULT 1
AAY90737
ID AAY9
XX AAY9
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Mouse neuroprotect
Murine Bax protein
Mouse BAX protein
Murine Bcl-2 assoc
Murine Bcl-2 assoc

BAX polypeptide lacking an ART domain, useful for identifying agenthat modulate apoptosis which can then be used for treating cancer

useful for identifying agents he used for treating cancer -

Example 2; Page 53; 53pp; English

Mouse

BAX

alpha

Mouse neuroprotect Mouse neuroprotect

Mouse

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RESULT 2
AAY70817
ID AAY70817
XX AAY7
XX AAY7
XX AAY7
XX MOUS
XX MOUS
KW APOF
KW APOF
KW APOF
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                                                                                                                The present sequence is a specifically claimed truncated BAX protein tBAX70 which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of first 70 amino acids of mouse BAX alpha, that includes the N-terminal region and a portion of the domain. It lacks the BHI, BH2 and C-terminal transmembrane domains compared to the contract of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                 the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity.
                                                                                                                                                                                                                                                                                                               Claim 4; Page 32; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                 Truncated BAX polypeptides useful for preventing for the treatment of nervous system disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             apoptosis; treatment; n
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention describes a pure protein (P1) comprising polypeptide lacking an apoptotic regulation of targeting (ART) P1 has cytostatic activity and can be used in the modulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Johnson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-OCT-1998;
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/note= "BH3 domain in the
of amino acids 59-73"
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59..70
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73.7%;
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                             used
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               trauma; stroke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BAX alpha; BCL-2
                          diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 21;
1e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from the present invention are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    full-length BAX alpha consists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   вах
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tBAX70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>ن</u>
                       associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                        apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   alpha"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       represents a mouse is used in an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20;
                       with
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                                                                                                                                                                                                               x protein
factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neuroactive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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                   neuronai
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RESULT 3
AAY70821
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SO XX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
       The present sequence is a specifically claimed truncated BAX protein, tBAX70 mutant (tBAX70M) which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain from mouse BAX alpha. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal
 apoptosis,
                                                                                                         Claim 4;
                                                                                                                              Truncated BAX polypeptides useful for preventing for the treatment of nervous system disorders -
                                                                                                                                                              N-PSDB;
                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury;
                                                                                                                                                                                             Johnson
                                                                                                                                                                                                                 (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                      22-OCT-1998;
                                                                                                                                                                                                                                                            22-OCT-1999;
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                                                                                                                                                                                                                                                                                                     WO200023083-A1
                                                                                                                                                                                                                                                                                                                                                         Misc-difference
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY70821;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY70821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
                                                                                                                                                                                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                        2000-339513/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MDGSGXXXXXGGPTSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MDGSGEQLGSGGPTSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neuroprotective truncated
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cord
                                                                                                                                                                                            EM,
                                                                                                                                                              AAD00124
                                                                                                       Page 34; 43pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    injury; head trauma; stroke.
                                                                                                                                                                                            Easton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                      98US-0177315
                                                                                                                                                                                                                                                            99WO-US24747
 neurodegenerative diseases,
                                                                                                                                                                                                                                                                                                                                                        /note=
of amir
55
                                                                                                                                                                                                                                                                                                                                   /note=
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                                                                                                                                                                                                                                                                                                                                                                              /label= Partial_BH3_domain
/note= "BH3 domain in the
                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                          /note=
                                                                                                                                                                                                                                                                                                                                                                                                             note=
                                                                                                                                                                                                                                                                                                                                                                   amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein;
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73
                                                                                                                                                                                                                                                                                                                                                                                                           "N-terminal region
                                                                                                                                                                                                                                                                                                                          Wild
                                                                                                                                                                                                                                                                                                                                              "Wild
                                                                                                        English.
                                                                                                                                                                                                                                                                                                                                                                  3H3 domain in acids 59-73"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 69; DB
Pred. No. 4e-(
0; Mismatches
                                                                                                                                                                                                                                                                                                                         type
                                                                                                                                                                                                                                                                                                                                             type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tBAX70M;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BAX protein tBAX70 mutant
                                                                                                                                                                                                                                                                                                                                              Ser
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                                                                                                                                                                                                                                                                                                                                              is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BAX alpha; BCL-z ram
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4e-05;
                                                                                                                                                                                                                                                                                                                         substituted by
                                                                                                                                                                                                                                                                                                                                              substituted
                                                                                                                                                                                                                                                                                                                                                                                                             from
                                                                                                                                                                                                                                                                                                                                                                             full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21;
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                                                                                                                                                                                                                                                                                                                                                                                                              BAX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                      apoptosis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                             alpha"
                                                                                                                                                                                                                                                                                                                                             bу
                                                                                                                                                                                                                                                                                                                                                                             BAX alpha
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                                                                                                                                                                                                                                                                                                                                             Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    family; mutant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
 injury,
                                                                                                                                         neurons
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RESULT 4
AAY70819
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ID YAAY70819
AAY70819
ID YAAY70
AX AAY7
AAY AOUS
KW MOUS
KW APOE
KW APOE
KW SPIT
COS MUS
FT Regi
FT Regi
FT DOME
FT TOME
AX WPI
DR WPI
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                 Best
   Matches
                            Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                              The present sequence is a specifically claimed truncated BAX protein tBAX78 which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of first 78 amino acids of mouse BAX alpha, that includes the N-terminal region and BH3 domain. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroapoptosis; treatment; neurodegenerative disease; peripheral nerve spinal cord injury; head trauma; stroke.
                                                                                        transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
                                                                                                                                                                                                                                                            Claim
                                                                                                                                                                                                                                                                                         Truncated BAX polypeptides useful for preventing apoptosis of neurons for the treatment of nervous system disorders \cdot
                                                                                                                                                                                                                                                                                                                                       WPI; 2000-339513/29
N-PSDB; AAD00123.
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                                                             Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mouse; truncated BAX protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mouse neuroprotective truncated BAX protein, tBAX78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY70819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               spinal cord injury,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus
              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MDGSGXXXXXGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MDGSGEQLGSGGPTSSEQI 19
                                                                                                                                                                                                                                                            4; Page 33; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14;
                                                                                                                                                                                                                                                                                                                                                                                     EM,
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                                                            78
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   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                     Easton
                                                            A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "N-terminal 59..73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= BH3_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 head
               88.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 trauma
 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
              Score 69; DB 21;
Pred. No. 4.5e-05
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 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 region
 . 4.5e-05;
tches 5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21;
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                            Length 78;
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 Indels
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Gaps
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RESULT 5
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                                                                                                                                                                                                                                             domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
                                                                                                                                                                                                                                                                                                                                                                      The present sequence is a specifically claimed truncated BAX protein, tBAX78 mutant (tBAX78M) which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain of mouse BAX alpha, and a novel C-terminal sequence of 8 amino acids not present in BAX alpha. It lacks the BH1, BH2 and C-terminal transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mouse; truncated BAX protein; tBAX78M; BAX alpha; BCL-2 family; mutant; neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 4; Page 34-35; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Johnson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-JUL-2000
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                                                1 MDGSGXXXXXGGPTSSEQI 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cord injury; head trauma; stroke
                                                                                            Similarity 73. 
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAD00126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EM,
                                                                                                                                                                                                   78 AA;
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71..78
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73.7%;
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                                                                                                                      Score 69; DB 21;
Pred. No. 4.5e-05;
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                                                                                                                                             Length 78;
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RESULT 6
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XW Huma
XW Huma
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XW A
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                                                                                                                                                                                                                                                                                                                                                                     CC associated with the bol-2 alpha and beta proteins. bol-2 is encoded by a CC proto-oncogene and is capable of inhibiting apoptosis in many CC hematopoietic cell systems. bol-2 is a 26 kD membrane-associated CC cytoplasmic protein and is thought to function by enhancing the survival CC of hematopoietic cells of B and T origins rather than directly promoting proliferation of these cell types. bol-2 has not been shown to directly promote cell cycle progression nor does it necessarily alter the dose CC reponse to limiting concentrations of IL-3. bol-2 has been shown to form the form the cell death induced by cytokine deprivation in an IL-3 dependent CC cell line, and it also acts to counter the death repressor activity of col-2. Therefore, the ratio between bol-2 and Bax determines cell CC survival or death following an apoptotic stimulus. The invention gives CC mutant protein substantially incapable of binding Bax and/or incapable CC mutant protein substantially incapable of binding Bax and/or incapable of death repressor activity. Down regulation of bol-2 is useful in CC cancer therapy, controlling hyperplasias and eliminating self-reactive closes in autoimmunity by favouring death effector molecules. Up CC cell death because, including AIDS and neurodegenerative and ischaemic CC cell death, in the death and neurodegenerative and ischaemic colling hyperplasias and neurodegenerative and ischaemic colling hyperplasias and neurodegenerative and ischaemic cell in the cell in treatment and diagnosis of immuno-
                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This sequence represents murine Bax protein. Bax is a protein which is associated with the bcl-2 alpha and beta proteins. bcl-2 is encoded by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Methods for producing and identifying mutant bcl-2 proteins - that lack death repressor activity and/or lacks binding to Bax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1995-106605/14.
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apoptosis; membrane-associated cytoplasmic protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR71407;
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25-MAY-1994;
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                                                                                       1 MDGSGXXXXXGGPTSSEQI
                       MDGSGEQLGSGGPTSSEQI
                                                                                                                                                       l Similarity
14; Conserv
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                                                                                                                                                       Conservative
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94US-0248819.
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73.7%;
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RESULT 8
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Best Local
                                                                                                                                                                                                                                                                                                                        BH3 polypeptide can be used in a method for promoting apoptosis in a target cell, especially where the cell is a cancer cell a virus infected tell or an autoantibody producing cell. The BH3 polypeptide can be used in therapeutic compositions for treating disease including cancer, other lymphoprolliferative conditions, arthritis, inflammation, and autoimmune diseases, which may result from the down regulation of cell death
                                                                                                                                                                                                                                                                                                                                                                                              This sequence represents the murine BAX protein.
The invention relates to a bcl homology domain 3 (BH3 domain), derived from a proapoptotic member of the BCL-2 family. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BH3 domain; cell death agonist; bc1 homology domain; BCL-2 family; apoptosis promoter; cancer cell; virus infected cell; inflammation; autoantibody producing cell; cancer; lymphoproliferative condition; arthritis; autoimmune disease; therapy.
         Murine; Bcl-2
bcl-2-related
                                            Murine Bcl-2 associated protein designated Bax.
                                                                        10-MAR-1999
                                                                                                                       AAW87805 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-OCT-1997;
26-SEP-1997;
                                                                                                 AAW87805;
                                                                                                                                                                                                                                                                                      Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bcl homology domain 3 polypeptide
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                                                                        (first
         associated protein; Bax; bcl-2; antibody; modulator; function; apoptosis.
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97US-0060133
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26-AUG-1993;
25-MAY-1994;
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26-AUG-1993;
25-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 designated Bax. The Bax protein is used in a composition which comprises a bcl-2 family member polypeptide, a naturally occurring Bax polypeptide and an antibody that binds to the Bax polypeptide. The composition is used to identify modulators of bcl-2-related function, e.g. substances that inhibit binding of Bax to bcl-2, which would be potentially useful as drugs for modulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence represents a murine Bcl-2 associated protein designated Bax. The Bax protein is used in a composition which comprises a bcl-2 family member polypeptide, a naturally occurring Bax polypeptide and an antibody that binds to the Bax polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus
  WPI; 1999-105119/09
                                                                                                                                                                                                                                                                                                   05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                    US5856171-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                   bcl-2-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW87808;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW87808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Korsmeyer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US5856171-A
                                                Korsmeyer SJ
                                                                                               (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                  10-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA composition encoding bcl-2 two-hybrid and identifying modulators of bcl-2 function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1999-105119/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDGSGXXXXXGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MDGSGEQLGSGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bcl-2 associated protein designated Bax.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bc1-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Columns 73-74; 105pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 192 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                associated protein; Bax;
function; apoptosis.
                                                                                                                                             94US-0337646.
93US-0112208.
94US-0248819.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94US-0337646.
93US-0112208.
94US-0248819.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94US-0337646
                                                                                                                                                                                                                                                  94US-0337646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88.5%;
73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 69; DB 20;
Pred. No. 0.00012;
0; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bcl-2; antibody; modulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  reporter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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RESULT 10
AAY70828
ID 70828
ID 70828
AC AAY70
AC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroa
apoptosis; treatment; neurodegenerative disease; peripheral nerve
spinal cord injury; stroke; pro-apoptotic; PCD; programmed cell de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents a murine Bcl-2 associated protein designated Bax. The Bax protein is used in a composition which comprises a bcl-2 family member polypeptide, a naturally occurring Bax polypeptide and an antibody that binds to the Bax polypeptide. The composition is used to identify modulators of bcl-2-related function, e.g. substances that inhibit binding of Bax to bcl-2, which would be potentially useful as drugs for modulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY70828;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY70828 standard; Protein; 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      apoptosis
                      Truncated BAX polypeptides useful for preventing apoptosis of neurons for the treatment of nervous system disorders \boldsymbol{\cdot}
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Domair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mouse; truncated BAX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA composition encoding bcl-2 two-hybrid and identifying modulators of bcl-2 function
                                                                                                                                            Johnson
                                                                                                                                                                                            (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                           22-OCT-1998;
                                                                                                                                                                                                                                                                                        22-OCT-1999;
                                                                                                                                                                                                                                                                                                                                        27-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                     WO200023083-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mouse BAX alpha
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MDGSGXXXXXGGPTSSEQI 19
                                                                                               2000-339513/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MDGSGEQLGSGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity
14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10;
                                                                                                                                            EW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                         Easton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                           98US-0177315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ā
                                                                                                                                                                                                                                                                                           99WO-US24747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7; 105pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "BCL-2 Homology 98..118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /label= N-terminal_region
59..73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           150..165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                              169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                     'label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88.5%;
73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein; tBAX;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . 188
                                                                                                                                                                                                                                                                                                                                                                                                                                     Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BH2_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BH1_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 69;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BAX alpha; BCL-2 family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; DB 20;
. 0.00012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               reporter system -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neuroactive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        head trauma;
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RESULT 11
AAB74122
Matches
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                                                                                                                                                                                                                                         10-NOV-1994;
26-AUG-1993;
25-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        specific truncated proteins derived from BAX alpha which inhibit neuronal apoptosis induced by trophic factor deprivation. The anti-apoptotic truncated BAX (tBAX) proteins include tBAX70, tBAX78 and their mutants. These proteins contain the N-terminal region and at least a portion of the BH3 domain of BAX alpha and lack the BH1, BH2 and C-terminal transmembrane domains. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The tBAX proteins are used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
                                                                                                Modulating apoptosis of a cell, useful in maintaining homeostasis adult tissues, or treating proliferative or autoimmune diseases, comprises administering a bcl-2 polypeptide that interacts with a bcl-2 associated X protein
                                                                                                                                                                WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                       myocardial infarction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The
                                                                                                                                                                                        Korsmeyer
                                                                                                                                                                                                                 (UNIW
                                                                                                                                                                                                                                                                                             11-SEP-1997
                                                                                                                                                                                                                                                                                                                      06-FEB-2001
                                                                                                                                                                                                                                                                                                                                              US6184202-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                  apoptosis modulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murine
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB74122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB74122 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein which in regulation
                                                                                                                                                                                                                                                                                                                                                                                                            neurodegenerative
                                                                                                                                                                                                                                                                                                                                                                                               lymphoproliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
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                                                                                                                                                                                        SJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   associated X protein (Bax)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GSGGPTSSEQI 19
                                                                                                                                                                                                                 WASHINGTON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  equence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     XXGGPTSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               arity
                                                                                                                                                                                                                                                                                                                                                                                                        ulator; bcl-2 associated X protein; cancer they immunodeficiency; reperfusion injury; stroke; farction; traumatic brain injury; ischaemia; tive diseases; hepatitis; transplant rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     equence is a mouse BAX alpha protein, a pro-apoptotic is a member of BCL-2 family of proteins that are involv of neuronal programmed cell death. The patent discloses
                                                                                                                                                                                                                                         94US-0337646.
93US-0112208.
94US-0248819.
                                                                                                                                                                                                                                                                                             97US-0927326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36-37; 43pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein;
                                                                                                                                                                                                                                                                                                                                                                                                disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19
                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunosuppressive; immunostimulant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 69; DB 21; Le
Pred. No. 0.00012;
Pred. No. 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 192
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 192;
                                                                                                                                                                                                                                                                                                                                                                                                           rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                   aging;
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                                                                                                                                                                                                                                                                                                                                                                                                           toxemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                           infection;
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The present invention relates to a method of modulating apoptosis cell. The method comprises administrating to the cell an agent, comprising a BHI domain or BHZ domain, capable of modulating form at least one complex selected from bcl-2:bcl-2 complexes, bcl-XL:

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RESULT 12
AAB74125
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Best Local :
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26-AUG-1993;
25-MAY-1994;
                              The present invention relates to a method of modulating apoptosis of a cell. The method comprises administrating to the cell an agent, comprising a BHI domain or BH2 domain, capable of modulating formation c at least one complex selected from bcl-2:bcl-2 complexes, bcl-XL:bcl-XL complexes, bcl-2 associated X protein (Bax):Bax complexes, bcl-2:Bax complexes or bcl-XL:Bax complexes. Modulating apoptosis is especially useful in cancer therapy, and treating autoimmunity, immunodeficiency diseases (e.g. AIDS), reperfusion injury, myocardial infarction, stroke, traumatic brain injury, neurodegenerative diseases, aging, ischaemia, infection, hepatitis, transplant rejection, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    adult tissues, or treating proliferative or autoimmune diseases, comprises administering a bcl-2 polypeptide that interacts with bcl-2 associated X protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murine; Bax; cytostatic; immunosuppressive; immunostimulant; apoptosis modulator; bcl-2 associated X protein; cancer there autoimmunity; immunodeficiency; reperfusion injury; stroke; a myocardial infarction; traumatic brain injury; ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complexes, bcl-2 associated X protein (Bax):Bax complexes, bcl-2:Bax complexes or bcl-X:Bax complexes. Modulating apoptosis is especially useful in cancer therapy, and treating autoimmunity, immunodeficiency diseases (e.g. AIDS), reperfusion injury, myocardial infarction, strol traumatic brain injury, neurodegenerative diseases, aging, ischaemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 7; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Modulating apoptosis of a cell, useful in maintaining homeostasis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-FEB-2001
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93US-0112208.
94US-0248819.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English
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Pred. No. 0.00012;
Pred. No. 0.00012;
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sequence is
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murine Bax, which
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RESULT 14
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Best Local !
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                                                                                                                                                                                                                                                                                       The present invention describes a method for identifying modulators of apoptosis which involves contacting a compound of interest with a lipid bilayer comprising a K+ or Cl- selective channel. This channel is a member of the BCL-2 family. Apoptosis modulators are also provided,
                                                                                                                                                                                                                                                                                                                                                                                                      Identifying apoptosis-modulating compounds by contacting the compound with lipid bilayer containing an ion channel formed by anti-apoptotic polypeptide of Bcl-2 family and determining ion selectivity of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            was used in a sequence alignment in the present invention, with human (AAB74126), human Bcl-2 (AAB74127) and murine Bcl-2 (AAB74128).
 08-MAY-2002
                              AAU76551;
                                                         AAU76551 standard; Protein;
                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Korsmeyer SJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Murine Bax
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mouse; Bax;
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                                                                                                                                                           MDGSGXXXXXGGPTSSEQI
                                                                                                                               MDGSGEQLGSGGPTSSEQI 19
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                                                                                                                                                                                                      Similarity
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                                                                                                                                                                                                                                                                             Bcl-2deltaTM and
                                                                                                                                                                                                                                                  192 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      apoptosis modulator; BCL-2.
                                                                                                                                                                                        Conservative
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(first entry)
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73.7%;
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                                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                                                                                                                                                                             BaxdeltaTM
                                                         192 AA
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Pred. No. 0.00
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                      Score 69; DB 22;
Pred. No. 0.00012;
                                                                                                                                                                                        Mismatches
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0.00012;
5;
                                                                                                                                                                                                                  Length 192;
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                                                                                                               RESULT 15
AAY90735
ID AAY90
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Best Local :
                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                      indicates that the compound is an apoptosis promoter and a decrease in the number of large pores indicates that it is an apoptosis inhibitor. Apoptosis modulating compounds are useful for inducing or inhibiting apoptosis in a cell, to treat a patient having a condition mediated by excessive down-regulation of apoptosis (such as neoplasias, diseases caused by Epstein-Barr virus, African swine fever virus and ademovirus, lymphoproliferative conditions, cancer, arthritis, Crohn's disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a method for identifying apoptosis modulating compounds, involving contacting a lipid membrane with a pore-forming pro-apoptotic BCL-2 family member and a test compound, and determining whether the compound regulates formation of large pores in the lipid membrane. An increase in the number of large pores in the lipid membrane
                                                                                                                                                                                                                                                                                                                                inflammation and autoimmune diseases), or excessive apoptosis (such as immunodeficiency diseases, senescence, neurodegenerative diseases, ischaemic and reperfusion cell death, infertility and wounds. This sequence represents the mouse Bax polypeptide which is useful for promoting apoptosis in the methods of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Identifying apoptosis modulating compounds for treating e.g. cancer, comprises contacting a lipid membrane with a pore-forming BCL-2 members and test compound, and determining if formation of large pores in the
Apoptotic regulation of targeting domain; ART domain; BAX; apoptosis;
                           Apoptotic regulation of targeting domain consensus sequence SEQ ID NO:1
                                                         17-AUG-2000
                                                                                      AAY90735
                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Fig 11; 70pp; English.
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                                                                                                                                                          The present invention describes a pure protein (P1) comprising a BAX polypeptide lacking an apoptotic regulation of targeting (ART) domain. P1 has cytostatic activity and can be used in the modulation of apoptomis. The polypeptides and methods from the present invention are usefull for identifying compounds that modulate apoptosis which can then be used for treating cancer. The present sequence represents a consensus sequence for an ART domain derived from human, mouse and rat, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                        {\tt BAX} polypeptide lacking an ART domain, useful for identifying agents that modulate apoptosis which can then be used for treating cancer -
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Q9uqd6 homo sapien
Q9ny97 homo sapien
Q9ny97 homo sapien
Q9h039 homo sapien
Q8sq43 felis silve
Q9bvv5 homo sapien
Q08107 xenopus lae
Q9bv93 homo sapien
Q08450 sigma virus
Q8tic5 methanosarc
Q28129 bos taurus
Q8tic5 methanosarc
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Q9sh58 arabidopsis
Q17816 caenorhabdi
Q8q880 human immun
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A conserved intronic response element mediates direct transcriptional activation of both the human and murine submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases. EMBL; AF339055; AAL73334.1; -.
                                                                                                                                                                                                                                                                MEDLINE=99120940; PubMed=9920818; Shi B., Triebe D., Kajiji S., Iwata K.K., Bruskin A., "Identification and characterization of baxepsilon, a variant missing the BH2 and the transmembrane domains. Biochem. Biophys. Res. Commun. 254:779-785(1999). EMBL; AF007826; AAD22706.1; -.
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Mammalia; Eutheria;
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Mammalia; Eutheria;
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Eukaryota; Metazoa; Cl
Mammalia; Eutheria; Pu
NCBI_TaxID=9606;
[1]
                                                                                                                                                                                                                                                                                                 01-MAR-2001
01-MAR-2001
01-MAR-2001
                                                                                                                                                                                               Bloecker H., Boecher M., Brandt P., Mewes H.W. Submitted (DEC-2000) to the EMBL/GenBank/DDBJ EMBL; AL512746; CAC21671.1; -
                                                                                                                                                                                                                                                        Homo sapiens (Human)
Eukaryota; Metazoa; (
Mammalia; Eutheria; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS50062; BCL2.
PROSITE; PS01080; BH1;
PROSITE; PS01259; BH3;
SEQUENCE 179 AA; 19
                                                                                                                                                                               Hypothetical protein.
                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                  DKFZP547M114.
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Felis
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                                                                                                                                                                                                                                                                                          Hypothetical 5.1
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Primates;
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Best Local :
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O08107;
O1.NOV-1996 (TrEMBLrel. 01, Created)
O1.NOV-1996 (TrEMBLrel. 01, Last sequence update)
O1.NOV-1996 (TREMBLrel. 19, Last annotation update)
O1-DEC-2001 (TREMBLRel. 19, Last annotation update)
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Q9BVV5;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 33.3 kDa protein.
Hypothetical 33.3 kDa protein.
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata;
Eukaryota: Metazoa; Chordata; Craniata; Hominidae
                                                                                                                Eukaryota;
Amphibia; F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yamazaki J., Oguma K., Kano R., Hasegawa A.; "molecular cloning of feline bcl-2 family.", Submitted (MAR-2002) to the EMBL/GenBank/DDBJ EMBL; AB080724; BAB85810.1; -. 852D271AE86923F
  SEQUENCE FROM N.A. MEDLINE=93366942; PubMed=8360278;
                                                                                                                                                            Xenopus laevis (African clawed frog).
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SMART; SM00166; UBX; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR000449; UBA_domain.
InterPro; IPR001012; UBX.
Pfam; PF00627; UBA; 1.
Pfam; PF00789; UBX; 1.
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Mammalia; Eutheria;
                                                                      NCBI_TaxID=8355;
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Batrachia; Anura;
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Catarrhini;
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49;
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                                                                                                           Vertebrata;
ia; Pipoidea;
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                                                                                                           Euteleostomi;
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Q88450;
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Q1-NOV-1996 (TrEMBLrel
Q1-JUN-2000 (TrEMBLrel
RNA POLYMETASE alpha s
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01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2002 (TrEMBLrel. 21,
Similar to ORF.
NCBI_TaxID=11301; [1]
                                         Sigma virus.
Viruses; ssRNA negative-strand viruses; Rhabdoviridae; unclassified Rhabdoviridae
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SEQUENCE
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Mammalia; Eutheria;
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Homo sapiens (Human).
Homo sapiens (Human).
Chordata;
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                                                                                                                                    phosphoprotein).
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InterPro; IPR001012; UBX.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tted (DEC-2000) to the EMBL/GenBank/DDBJ BC001372; AAH01372.1; -.
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SM00166; UBX;
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(TrEMBLrel. 01, Last sequence update)
(TrEMBLrel. 14, Last annotation update)
ase alpha subunit (EC 2.7.7.48) (Nonstruc
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33107 MW;
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Last annotation update)
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Pred. No.
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                                                                                                                                                                                                                                                                     PRT;
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RC STRAIN=C2A / ATCC 35395 / DSM 2834;

RX MEDLINE-21929760; PubMed-11932238;

RX MEDLINE-21929760; PubMed-11932238;

RA Galagan J.E., Nusbaum C., Roy A., Endrizzi M.G., Macdonald P.,

RA FitzHugh W., Calvo S., Engels R., Smirnov S., Atnoor D., Brown A.,

RA Allen N., Naylor J., Stange-Thomann N., DeArellano K., Johnson R.,

A Linton L., McEwani P., McKernan K., Talamas J., Tirrell A., Ye W.,

RA Zimmer A., Barber R.D., Cann I., Graham D.E., Grahame D.A., Guss A.M.,

RA Zimmer A., Barber R.D., Cann I., Graham D.E., Grahame D.A., Guss A.M.,

RA Zimmer A., Umayam Smith C., Kuettner H.C., Krzycki J.A.,

RA Leigh J.A., Liu J., Mukhopadhyay B., Reeve J.N., Smith K.,

RA Springer T.A., Umayam L.A., White O., White R.H., de Macario E.C.,

RA Springer T.A., Jarrell K.F., Jing H., Macario A.J.L., Paulsen I.,

RA Ferry J.G., Jarrell K.F., Jing H., Macario A.J.L., Paulsen I.,

RA Pritchett M., Sowers K.R., Swanson R.V., Zinder S.H., Lander E.,

RA Metcalf W.W., Birten B.,

RT "The genome of Methanosarcina acetivorans reveals extensive metabolic

RT and physlological diversity.",

RT Genome Res. 12:532-542(2002).

DR EMBL, AE011134; AAM07575.1; -

KC Complete proteome.

SCOURTS A. 34004 M. 354048CRER9784486 CD64.
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Best I
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Q28129
Q28129;
01-NOV-1996
01-NOV-1996
01-DEC-2001
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01-JUN-2002
01-JUN-2002
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Archaea; Euryarchaeota; Methanococci;
Methanosarcinaceae; Methanosarcina.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.

MEDLINE-96074506; PubMed-7491755;
Landes-Devauchelle C., Bras F., Dezelee S., Teninges D.;
"Gene 2 of the sigma rhabdovirus genome encodes the P protein,
gene 3 encodes a protein related to the reverse transcriptase (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q8TIC5
                                                                                                                                                                                                                                                                                                                                                                                                                                          Predicted protein
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Transferase; RNA-directed RNA polymerase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Virology 213:300-312(1995).
EMBL; x91062; CAA62514.1; -.
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01-NOV-1996
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Shinn P., Khan S., Brooks S., Buehler E., Chao Q., Dunn P., Kim Walker M., Altafi H., Araujo R., Conn L., Conway A.B., Gonzalez Hansen N.F., Huizar L., Kremenetskaia I., Lenz C., Li J., Liu S. Luros S., Rowley D., Schwartz J., Toriumi M., Vysotskaia V., Yu Davis R.W., Federspiel N.A., Theologis A., Ecker J.R.; "Genomic sequence for Arabidopsis thaliana BAC F22C12 from chrom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosid
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE=87293907; PubMed=3617506;
Liou G.I., Fong S.-L., Beattie W.G.,
Landers R.A., Alvarez R.A., Wang C.,
"Bovine interstitial retinol-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pec
                                                                                                                                                                                                                                                                               Submitted (OCT-2000)
EMBL; AC007764; AAF2
SEQUENCE 411 AA;
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InterPro; IPR003581; TSPc
Pfam; PF02692; IRBP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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translation of mRNA."
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Similarity 100.0%;
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(TrEMBLrel.)
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annotation
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C., Li Y., Bridges C.D.B.;
ling protein (IRBP)-isolation
characterization and in vitt
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STRAIN-00GAB-10K:

Vergne L., Mitsoul I., Malonga-Mouelet G., Mavoungou R., Mansaray
Peeters M., Delaporte E.;

"Emergence of HIV-1 drug-resistant variants in Gabon: need for
"Implementation of guidelines on ARV use and drug resistance monoto
in developing countries.";

J. Acquir. Immune Defic. Syndr. 0:0-0(2002).

EMBL; AJ313412; CAC86673.1; -.
                                                                                                                                                                                                                                                                                                                                                          O8Q880 PRELIMINARY; PRT; Q8Q880; O1-JUN-2002 (TrEMBLrel. 21, Created) O1-JUN-2002 (TrEMBLrel. 21, Last sequence of protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Genome sequence of the nematode C.elegans: A platform for investigating biology."; Science 282:2012-2018(1998).
EMBL; 272502; CAA96587.1; -.
HSSP; P23951; 2BAA.
                                                                                                                                                                                                                                                                                                          Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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Pfam: PF00182; Glyco_hydro_19; 1.

ProDom; PD000574; Glyco_hydro_19; 1.

SEQUENCE 447 AA; 49583 MW; 6B4EC67A89B13D17 CRC64;
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"Increased ratio of bcl-2/bax expression is associated with leukemia virus-induced leukemogenesis in cattle.";
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15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
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SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH BCL-2, E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1 (BY SIMILARITY).

SUBCELLULAR LOCATION: Membrane-bound (BY SIMILARITY).

ALTERNATIVE PRODUCTS: A 21 KDA MEMBRANE PROTEIN ALPHA AND THE TWO CYTOPLASMIC PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INT WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY (BY SIMILARITY).

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
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Q07817; 1MAZ.
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Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                       splicing
     DВ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BAK, BAD AND INTERACTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 commercia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            no
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RESULT 3
BAXA_HUMAN
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Matches 9; Conser
              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANT PLASMACYTOMA GLU-11, VARIANT T-(
LEUKEMIA ARG-67, AND VARIANT BURKITT LY;
MEDLINE-98200607; PubMed-9531611;
Meijerink J.P.P., Mensink E.J.B.M., Wans
Sloetjes A.W., de Witte T., Waksman G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chittenden T., Flemington C., Houghton Elangovan B., Chinnadurai G., Lutz R.J "A conserved domain in Bak, distinct f. death and protein binding functions."; EMBO J. 14:5589-5596(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "BC1-2 heterodimerizes accelerates programmed Cell 74:609-619(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chittenden T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                               Blood 91:2991-2997(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MUTAGENESIS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-93364978;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=B-cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q07812;
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                                                                                                                                                                                                                                                                                                                                                                                                                                           "Hematopoietic malignancies demonstrate loss-of-function mutations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=96091131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Apoptosis regulator BAX, membrane isoform alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11
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                                                                                                                                               ALTERNATIVE SPLICING.
TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF THE SPECIFICITY IN THE PROPERTY OF THE BOUNDAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BII BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THE BAX FOR THEIR PRO-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
DISEASE: Defects in BAX are found in some cell 1.
DISEASE: Defects in BAX are found in some cell 1.
DEFENDED TO THE BCL-2 FAMILY.
                                                                        Burkiti lymphoma, and plasmacytoma.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3
SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                                      FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING TO, AN ANTAGONIZING THE APOPTOSIS REFRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG E1B 19k PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C. ACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS. SUBURIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH BCL-18 19k PROTEIN. BCL-X(L), MCL-1 AND A1. SUBCELLULAR LOCATION: Membrane-bound.
                                                                                                                                                                                                                                                                                         ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                           CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGPTSSEQI 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Z.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Milliman C.L., Korsmeyer S.J.; addimerizes in vivo with a conserved homolog, Bax, that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                           ISOFORMS, BETA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed=8521816;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=8358790;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
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                                                                                                                                                                                                                                                                                         THE MEMBRANE
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                                                                                                                                                                                                                                                                           GAMMA AND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wang K.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Korsmeyer S.J.
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                                                                                                                                                                                                                                                                           DELTA
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                                                                                        (BH1)
(BH2)
(BH3)
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                                                                                                                                                                                                               BIK, BID,
FOR THEIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sedlak T.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ebb
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                                                                                                                                                   lymphoblastic
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                                                                                        DOMAIN.
DOMAIN.
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                                                                                                                                                                                                                                                                           GENERATED
                                                                                                                                                                                                                                                                                         AND THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mediates cell
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                                                                                                                                                                     from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                   leukemia,
                                                                                                                                                                                                                                                                                         THREE
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institutions

Long

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BAXA_MOUSE
ID BAXAMAC
ODARAIM
AC QOPABIM
AC QOPABIMAC
OLFEB
DT 01-FEB
DT 15-JUN
DE APOPTO
GN BAX.
OS MUS mU
OC EUKARY
OC MAMMALI
OX NCBLT
RN [1]
RP SEQUEN
RC STRAIN
RX MEDLIN
RX MEDLIN
RX MEDLIA
RA Oltvai
RT accele
RT cell
PT CC
CC -i-FU
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Best Local S
Matches 9
                                 STRAIN=C57BL/6 x DBA/2;

MEDLINE=93364978; pubMed=8358790;

Oltvai Z.N., Milliman C.L., Korsmeyer S.J.;

"Bcl-2 heterodimerizes in vivo with a conserved homolog, Bax, that accelerates programmed cell death.";

cell 74:009-619(1993).

-i- FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING TO, AND ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG E1B 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C, ACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS. BAX DEFICIENCY LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE CESSATION OF SPERM PRODUCTION.
                                                                                                                                                                                                                                                                               01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS01080; BH1; PROSITE; PS01258; BH2; PROSITE; PS01259; BH3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; L22473; AAA03619.1;
PIR; A47538; A47538.
HSSP; Q07817; IMAZ.
                                                                                                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                          Q07813;
                                                                                                                                                                                                                                                                                                                                    BAXA_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR002475;
InterPro; IPR000712;
Pfam; PF00452; Bcl-2;
                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                            NCBI_TaxID=10090
                                                                                                                                                                                                                                                Mus musculus (Mouse)
                                                                                                                                                                                                                                                                        Apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS50062; BCL2_FAMILY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or send
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                                                                                                                                                                                                                                                                                                                                                                                                  11 GGPTSSEQI 19
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           SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1.
                                                                                                                                                                                                                                                                                                                                                                                                                         GGPTSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600040;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           * mutation.
59
98
150
172
M 172
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9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          s requires a license agreement (S an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and this statement is not removed
                                                                                                                                                                                                                                                                        regulator
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                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                        Chordata;
Rodentia;
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118
165
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192
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Bcl2_BH.
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                                                                                                                                                                                                                                                                         membrane
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 9; [
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G -> R (IN T-CELL ACUTE LYMPHOBLASTIC LEUKEMIA; LOSS OF HETERODIMERIZATION BCL-2 OR BCL-X(L)).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G -> E (IN PLASMACYTOMA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOMODIMERIZATION).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /FTId=VAR_
                                                                                                                                                                                                                       Craniata; Ver
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /FTId=VAR_007809
                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6C0CDB0A7DEE4994 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -> V (IN BURKITT LYMPHOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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                                                                                                                                                                                                                                                                                                                                    192
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 013575
                                                                                                                                                                                                                     Vertebrata; Euteleostomi;
thi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                    A
                                                                                                                                                                                                                                                                        alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . Usage by http://www.i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 192
                        TOGETHER WITH BCL-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and for commercial
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Вþ
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Best Local S
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                                                                                                                                                                                                                      BAXA_RAT

BAXA_RAT

STANDARD,

Q63690; Q62995; Q64383;

Q1-NOV-1997 (Rel. 35, Created)

Q1-NOV-1997 (Rel. 35, Last sequence update)

15-JUN-2002 (Rel. 41, Last annotation updat

15-JUN-2002 (Rel. 41, Last annotation updat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR002475; BC InterPro; IPR000712; BC Pfam; PF00452; BC1-2; SMART; SM00337; BCL; 1.
                                                     Genes
                                                                SEQUENCE FROM N.A.

MEDILINE=96178771; PubMed=8600029;
Han J., Sabbatini P., Perez D., Rao L., M
"The ElB 19K protein blocks apoptosis by
inhibiting the p53-inducible and death-pr
Genes Dev. 10:461-477(1996).
                                                                                                                                                                                       Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                               RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long a modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -!- ALTERNATIVE PRODUCTS: A 21 kDa MEMBRANE PROTEIN ALPHA AND THE TWO CYTOPLASMIC PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERNATIVE SPLICING.
-!- TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUES.
-!- DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAD AND BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INTERACTION WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.
-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
-!- SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
MEDLINE=97147318; PubMed=8994223;
Madison D.L., Pfeiffer S.E.;
                          TISSUE=Brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Apoptosis;
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS01080; BH1; 1.
PROSITE; PS01258; BH2; 1.
PROSITE; PS01259; BH3; 1.
PROSITE; PS50062; BCL2_FAMILY; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; L22472; AAA03622.1; HSSP; P53563; 1AF3.
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                                        SEQUENCE OF
                                                                                                                                                               NCBI_TaxID=10116;
                                                                                                                                                                          Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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Bcl2_BH.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BH2.
POTENTIAL.
; D2E0B3566579FAFF CRC64;
                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
                                                                               death-promoting
                                                                                                                                                                                                                               tion update)
isoform alpha
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                                                                                                        Modha
                                                                                           Modha D., Whi interacting
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Endocrinology 136:322-241(1995).
-i- fUNCTION: ACCELERATES PROCRAMMED CELL DEATH BY BINDING TO, AND ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOWOLOG E1B 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C, ACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS.
-i- SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH BCL-2, E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1.
-i- SUBCELLULAR LOCATION: Membrane-bound.
-i- ALTERNATIVE PRODUCTS: A 21 KDA MEMBRANE PROTEIN ALPHA AND THE TWO CYTOPLASMIC PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=Sprague-Dawley; TISSUE-Ovary; MEDLINE=95129487; PubMed=7828536; Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.; "Expression of members of the bcl-2 gene family in the immature rat ovary: equine chorionic gonadotropin-mediated inhibition of granulosa cell apoptosis is associated with decreased bax and constitutive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           use by non-profit institutions as 1 modified and this statement is not rementities requires a license agreement
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR002475; I
InterPro; IPR000712; I
Pfam; PF00452; Bcl-2;
SMART; SM00337; BCL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                               Apoptosis;
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SPLICING.

TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUE TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUE TISSUE STATE AND OVARY.

IT HIGHEST LEVELS IN THE TESTIS AND OVARY.

ID DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INTER WITH HITT-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 HOMOLOGY 1 (BH1) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 FAMILY.
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                                                                y Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EN European Bioinformatics Institute. There are no resti
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U59184; AAC52998.1;

U32098; AAA75200.1;

S76511; AAC60700.2;

P53563; AAF3.
    GGPTSSEQI
                                            Similarity
9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                     PS01080; BH1;
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Bcl2_BH.
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100.08;
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                                                              Score 9
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POTENTIAL.
S -> N (IN
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BAXB_HUMAN
                    Query Match
                                                                                                                                                     Apoptosis;
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                                                                                                                                                                                                                                                      Pfam; PF00452; Bcl-2; 1
SMART; SM00337; BCL; 1.
PROSITE; PS01080; BH1;
PROSITE; PS01258; BH2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oltvai Z.N., Milliman C.L., Korsmeyer S.J.; "Bcl-2 heterodimerizes in vivo with a conserved homolog, Bax, that accelerates programmed cell death.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Apoptosis regulator BAX, cytoplasmic isoform beta
                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR002475; InterPro; IPR000712;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. The symmetry of the sym
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                              SEQUENCE
                                                                                                        DOMAIN
                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                        Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR; B47538; B47538.
HSSP; Q07817; 1MAZ.
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DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIR, BID, BAK, BAD ANI
BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INTERACTION
WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH ELB 19K PROTEIN, BCL-X(L), MCL-1 AND A1.
SUBCELLULAR LOCATION: CYCOP1ASMIC.
ALTERNATIVE PRODUCTS: THE MEMBRANE ISOFORM ALPHA AND THE CYTOPLASMIC ISOFORMS, BETA, GAMMA AND DELTA ARE GENERATED ALTERNATIVE SPLICING.
BLIERNATIVE SPLICING.
TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 CHOMOLOG E1B 19K PROTEIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                   HGNC:959; BAX.
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PS50062; BCL2
                                                                                                                                                                               Alternative
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Bcl2_BH.
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  DB 1; I
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01-OCT-1996 (Rel. 34, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
Hypothetical 33.4 kDa protein.
Homo sapiens (Human)
                                                                                                                                  Pollard K.M., Submitted (JUN-1991) to the EMBL/GenBa-i-SIMILARITY: CONTAINS 1 UBA DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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16-OCT-2001 (Rel. 40, Last annotation updat
Hypothetical protein in GRM 3'region (Fragm
                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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Mammalia; Eutheria; Primates; Catarrhini;
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SM00274; FOLN; 3.
SM00280; KAZAL; 3
   <u>^1</u>
                                                                                              Repeat;
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Tisdall D.J., Hill D., Petersen G.B., Fleming J.S.;

"Ovine follistatin: characterization of cDNA and expressi
rovary during the luteal phase of the oestrous cycle.";

L.J. MOL. Endocrinol. 8:259-264(1992).

-i- FUNCTION: BINDS DIRECTLY TO ACTIVIN AND FUNCTIONS AS
ANTAGONIST. SPECIFIC INHIBITOR OF THE BIOSYNTHESIS AN
OF PITUITARY FOLLICLE STIMULATING HORMONE (FSH).

-i- SUBGUNIT: MONOMER (POTENTIAL).

C.i- SUBGULIULAR LOCATION: Secreted.

-i- SUBGULIULAR CONTAINS 3 KAZAL-LIKE DOMAINS.

C.i- SIMILARITY: CONTAINS 3 KAZAL-LIKE DOMAINS.
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Pfam; PF00789; UBX; 1.
SMART; SM00165; UBA; 1.
SMART; SM00165; UBA; 1.
Hypothetical protein.
SEQUENCE 298 AA; 33396 MW;
                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                        modified and this statement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Caprinae; Ovis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ovis aries (Sheep). Eukaryota; Metazoa;
                                          EMBL; M63123; AAA31522.1; HSSP; P37109; 1PCE.
                                                                                                           or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=92337809; PubMed=1632897; Tisdall D.J., Hill D., Petersen G.B.,
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InterPro; IPR003645;
InterPro; IPR002350;
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                                                                                                                                                 primatics Institute. There are no restrictions on institutions as long as its content is in no attement is not removed. Usage by and for commen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata; Craniata; Vertebrata; Euteleostomi;
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FOLLISTATIN

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STRAIN=HOLStein: TISSUB=Testicle, and Ovary;

KMEDLINE=94280841; PubMed-8011323;

KMEDLINE=94280841; PubMed-8011323;

KMEDLINE=94280841; PubMed-8011323;

KMOUGA A., Lussier J.G., Ethier J.F., Gagnon C., Silverside Houde A., Lussier J.G., Ethier J.F., Gagnon C., Silverside Proceedings of Devine follistatin cDNA, Mol. Reprod. Dev. 37:391-397(1994).

MOI. Reprod
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InterPro; IPR002350; kazal
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SMART; SM00274; FOLN; 3.
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Mammalia; Eutheria; Cetartiodactyla;
Bovidae; Bovinae; Bos.
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                                                                                                                                                                                                                             entities
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                                                                                                                                                                                                                                                             "Molecular cloning of cDNA for equine follistatin and i expression in the reproductive trissues of the mare.";

J. Vet. Med. Sci. 61:201-207(1999).

- PUNCTION: BINDS DIRECTLY TO ACTIVIN AND FUNCTIONS A ANTAGONIST. SPECIFIC INHLAITOR OF THE BIOSYNTHESIS OF PITUITARY FOLLICLE STIMULATING HORMONE (FSH).
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Equus caballus (Horse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
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                                                                                         modified and this statement entities requires a license
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SIMILARITY: CONTAINS 3 FOLLISTATIN-LIKE DOMAINS
SIMILARITY: CONTAINS 3 KAZAL-LIKE DOMAINS.
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Stimulating hormone release-inhibiting polypeptide from the gonad.";
Mol. Endocrinol. 1:849-855(1987).

-i- FUNCTION: BINDS DIRECTLY TO ACTIVIN AND FUNCTIONS AS AN ACTIVIN ANTAGONIST. SPECIFIC INHIBITOR OF THE BIOSYNTHSIS AND SECRETION OF PHIULTARY FOLLICLE STIMULATING HORMONE (FSH).

-i- SUBUNIT: MONOMER (POTENTIAL).
-i- SUBCELLULAR LOCATION: Secreted.
-i- ALTERNATIVE PRODUCTS: 2 ISOFORMS; A (SHOWN HERE) AND A'; ARE PRODUCED BY ALTERNATIVE SPLICING.
-i- SIMILARITY: CONTAINS 3 FOLLISTATIN-LIKE DOMAINS.
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01-JUL-1989 (Rel. 11, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Follistatin precursor (FS) (Activin-binding p
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MEDLINE-91042571; PubMed-3153465;
Esch F.S., Shimasaki S., Mercado
Ueno N., Guillemin R.;
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MEDLINE=88209050; PubMed=3365249;
Shimasaki S., Koga M., Esch F., M
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s. Commun. 152:717-723(1988).
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BY SIMILARITY.

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YPK1_YE
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Best Local
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YPK1_YEAST
P12688;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Glycoprotein;
SIGNAL
CHAIN 3
                                                                                                                                                                        01-OCT-1989 (Rel. 12, Created)
01-JUN-1994 (Rel. 29, Last sequence up
16-OCT-2001 (Rel. 40, Last annotation
Serine/threonine-protein kinase YPK1 (
YPK1 OR YKL126W.
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"Isolation of a yeast protein kinase mammalian protein kinase cDNA."; DNA 7:469-474(1988).
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VARSPLIC
                                                                                                              Eukaryota; Fungi; i
Saccharomycetales;
NCBI_TaxID=4932;
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DOMAIN
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DOMAIN
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EMBL; M19529; AAA31037.1; -.
EMBL; M36512; AAA31038.1; -.
PIR; A27701; A27701.
HSSP; P37109; 1PCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                           Saccharomyces cerevisiae (Baker's yeast)
                                                Maurer R.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                               MEDLINE=89090805;
                                                                                SEQUENCE
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InterPro; IPR002350; kazal.
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                                                                                FROM
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                                                                 PubMed=2850145
                                                                                                                                               Ascomycota; Saccharomycotina;
                                                                                                                                Saccharomycetaceae;
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BY SIMILARITY.
BY SIMILARITY
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Pred. No.
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(EC 2.7.1.-).
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13;
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                                 screening with
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Best Local S
Matches
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PIR; S37955; S37955.
HSSP; P05132; 1CTP.
SGD; S0001609; YPK1.
                                           DNLI_ARATH STANDARD; PRT; 790 AA. 042572; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 15-JUL-1999 (Rel. 38, Last annotation update) 15-JUL-1999 (Rel. 38, Last annotation update) DNA ligase (BC 6.5.1.1) (Polydeoxyribonucleotide synthase [ATP]). Arabidopsis thaliana (Mouse-ear cress). Embryophyta; Tracheophyta; Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosid eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00107; PROTEIN_KINASE_ATP; 1.

PROSITE; PS00108; PROTEIN_KINASE_DOM; 1.

PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.

PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.

Transferase; Serine/threonine-protein kinase; ATP-binding.

DOMAIN 347 602 PROTEIN KINASE.

NP_BIND 353 361 ATP (BY SIMILARITY).

BINDING 876 ATP (BY SIMILARITY).

ACT_SITE 170 470 BY SIMILARITY.

CONFLICT 201 201 P -> L (IN REF. 2).

CONFLICT 553 553 M -> I (IN REF. 2).
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Pfam; PF00433; pkinase_C; 1.
ProDom; PD000001; Euk_pkinase; 1
SMART; SM00133; S_TK_X; 1.
SMART; SM00220; S_TKC; 1.
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SEQUENCE FROM N.A
                                NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR000719; Buk_pkinase.
InterPro; IPR000961; Pkinase_C.
InterPro; IPR002290; Ser_thr_pkinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; M21307; AAA34880.1; -. EMBL; Z28126; CAA81967.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
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                                                                                                                                                                                                                                                                                                              14 TSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pair of putative protein kinase genes (YPK1 r cell growth in Saccharomyces cerevisiae.";
1. Gen. Genet. 236:443-447(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: BELONGS TO THE SER/THR FAMILY OF PROTEIN KINASES RAC SUBFAMILY. STRONGEST TO YPK2.
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1 (MAR-1994)
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S., Levin D.E.;
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                                                                                                                                                                                                                                                                                                                                         31.6%; Score 6; DB
100.0%; Pred. No. 24
Live 0; Mismatches
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                                                                core eudicots; Rosidae;
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Best Local
                                                                                                                                             MEDLINE=89255256; PubMed=2542268; Liou G.I., Ma D.-P., Yang Y.-W., Geng "Human interstitial retinoid-binding primary structure."; J. Biol. Chem. 264:8200-8206/1989)
                                                          MEDLINE-90154038; PubMed-23034/v; MEDLINE-90154038; PubMed-23034/v; Fong S.-L., Fong W.B., Morris T.A., Kedzie K.A. "Characterization and comparative structural "Characterization and comparative protein.";
                                                                                                                                                                                                                                                                                                         P10745;
01-JUL-1989 (Rel. 11, Created)
01-NOV-1991 (Rel. 20, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Interphotoreceptor retinoid-binding protein p:
(Interstitial retinol-binding protein).
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-!- Fu
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                                                                                                                                                                                                                                                         Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                    RBP3
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MEDLINE=90006790; Pu
Si J.S., Borst D.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIGREAMS; TIGRO0574; dnl1; PROSITE; PS00697; DNA_LIGA
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                             SEQUENCE FROM
                                                     J. Biol.
                                                                                                                          SEQUENCE
                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ligase; DNA repair; DNA replication; ATP-binding.
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PS50160;
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ilarity 100.0%;
Conservative
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                          N.A.
                                                      265:3648-3653(1990)
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DNA_LIGASE_A2;
DNA_LIGASE_A3;
               PubMed=2792773;
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87766
 Redmond T.M.,
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                                                                                              T.A., Kedzie K.M.,
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Mismatches
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 Nickerson
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| protein.
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of the Arabidopsis
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 J.M.;
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the
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"Niterminal sequence homologies in interstitial retinol-binding proteins from 10 vertebrate species.";
FEBS Lett. 205:309-312(1986).
                                                                      EMBL;
PIR;
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                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produble tween the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There a use by non-profit institutions as long as immodified and this statement is not removed. Us
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"Interspecies conservation of structure of interphotoreceptor retinoid-binding protein. Similarities and differences as adjuby peptide mapping and N-terminal sequencing.";
Biochem. J. 240:19-26(1986).
                                                                                                                                                                                                                                               EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Albini A., Toffenetti J., Zhen Z., Chader G.J., Noonan D.M.; "Hypomethylation of the interphotoreceptor retinoid-binding | (IRBP) promotor and first exon is linked to expression of the Nucleic Acids Res. 18:5181-5187(1990).
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[6]
SEQUENCE OF 1-382 FROM N.A.
MEDLINE=90384818; PubMed=2402443;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Internal quadruplication in the structure of human interstitial retinol-binding protein deduced from its cloned cDNA."; J. Biol. Chem. 263:15330-15334(1988).
                                                                                                                                                                                                                                                                                                                        or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement
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MEDLINE-87156570; PubMed=3827838;
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Liou G.I., Fong S.-L., Gosden J.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=86301171;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=89008429; PubMed=3170584;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Human interstitial retinol-binding protein (IRBP): cloning, partial sequence, and chromosomal localization.";
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BL; M33866; AAA59453.1; JOINED.
BL; M23453; AAA36126.1;
BL; J05233; AAA618875.1; ALT_INIT.
BL; J05233; AAC18875.1; ALT_INIT.
BL; J03912; AAA59188.1; -...
BL; V53044; CAA37213.1; -...
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R; C25735; C25735.
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7a S., Cook R
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(See http://www.isb-sib.ch/announce/
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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## ALIGNMENTS

Query Match 47.4%; Score 9; DB 2; Length 179;	RESULT 2 JC7255 JC7255 JC7255 Late protein - human C:Species: Homo sapiens (man) C:Date: 09-Jun-2000 #sequence_revision 09-Jun-2000 #text_change 17-Nov-2000 C:Accession: JC7255 R:Schmitt, E.; Paquet, C.; Beauchemin, M.; Dever-Bertrand, J.; Bertrand, R. Biochem. Biophys. Res. Commun. 270, 868-879, 2000 A:Title: Characterization of Bax-delta, a cell death-inducing isoform of Bax. A:Reference number: JC7255 A:Accession: JC7255 A:Accession: JC7255 A:Accession: JC7255 A:Cossion: JC7255 A:Cross-references: GB:AF247393 A:Experimental source: cancer promyelocytic cells C:Comment: This protein, a member of the Bc1-2 family, has a proapoptotic effect. It ctivation. C:Superfamily: bc1 transforming protein C:Keywords: transmembrane protein	Genomics 26, 592-594, 1995 A; Title: Mapping of the human BAX gene to chromosome 19q13.3-q13.4 and isolation of a A; Fitle: Mapping of the human BAX gene to chromosome 19q13.3-q13.4 and isolation of a A; Reference number: 138921; MUID:95331797; PMID:7607685 A; Accession: 138921 A; Status: preliminary; nucleic acid sequence not shown: translation not shown . A; Status: preliminary; nucleic acid sequence not shown: translation not shown . A; Miscolecule type: mNNA A; Residues: 1-43 < RES> A; Genetics: 1-43 < RES> A; Cross-references: EMBL:U19599; NID:g841237; PIDN:AAC50142.1; PID:g841238 C; Genetics: GDB:BAX A; Gene: GDB:BAX A; Gene: GDB:C288082; OMIM:600040 A; Map position: 19q13.3-19q13.4 C; Superfamily: bcl transforming protein Query Match Query Match Query Match Query Match Q; Mismatches Q; Mismatches Q; Mismatches Q; Mismatches Q; Mismatches Q; Gaps Q; Ilililli Db 11 GGPTSSEQI 19	RESULT 1 138921 138921 138921  N;Alternate names: BAX; programmed cell death membrane protein x delta C;Species: Homo sapiens (man) C;Date: 09-Mar-1996 #sequence_revision 09-Mar-1996 #text_change 17-Nov-2000 C;Accession: I38921 R;Apte, S.S.; Mattei, M.G.; Olsen, B.R.

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N;Alternate names: BAX; programmed cell death membrane C;Species: Mus musculus (house mouse) C;Date: 03-May-1994 #sequence_revision 03-May-1994 #tex C;Accession: D47538
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A;Molecule type: mRNA
A;Residues: 1-192 <OLT>
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A;Cross-references: EMBL:X69469; NID:g313172; PIDN:CAA49228.1; PID:g313173 C;Superfamily: interphotoreceptor retinoid-binding protein C;Keywords: duplication
                                                                                                                                                                                                 interphotoreceptor retinoid-binding protein - African clawed frog (fragment)
C;Species: Xenopus laevis (African clawed frog)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 13-Aug-1999
C;Accession: S33927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N;Alternate names: BAX; programmed cell death membrane C;Species: Homo sapiens (man) C;Date: 03-May-1994 #sequence_revision 03-May-1994 #tex C;Accession: B47538 C;Accession: B47538 R;Oltvai, Z.N.; Milliman, C.L.; Korsmeyer, S.J.
                                                    A; Molecule type: DNA
A; Residues: 1-297 <GON>
                                                                                                          A; Title: Interphotoreceptor retinoid-binding protein (IRBP), A; Reference number: S33927; MUID:93366942; PMID:8360278 A; Accession: S33927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Kelemen, G.H.; Cundliffe, E.; Financsek, I.
Gene 98, 53-60, 1991
A;Title: Cloning and characterization of gentamicin-resistance
A;Reference number: JG0017; MUID:91192615; PMID:2013410
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C; Accession:
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PW0018
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A;Map position: 19q13.3-19q13.4
C;Superfamily: bcl transforming protein
C;Keywords: alternative splicing; blocks
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A; Title: Bcl-2 heterodimerizes in vivo with A; Reference number: A47538; MUID:93364978; I
                                                                                       A; Status: preliminary
                                                                                                                                                                R;Gonzalez-Fernandez, F.; Kittredge, K.L.; Rayborn, M.E.; Hollyfield, J.G.; Landers,
J. Cell Sci. 105, 7-21, 1993
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A; Residues: 1-105 <KEL>
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A; Residues: 1-218 <OLT>
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sion: PW0018
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PMID:8358790
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interphotoreceptor retinoid-binding protein - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 21-Nov-1997
C;Accession: A49185
R;Gonzalez:Fernandez, F; Van Niel, E.; Edmonds, C.; Beaver, H.; Nickerson, J.M.; Garc Exp. Eye Res. 56, 411-427, 1993
A;Title: Differential expression of interphotoreceptor retinoid-binding protein, opsin A;Reference number: A49185; MUID:93272869; PMID:7916695
A;Raccession: A49185
A;Status: preliminary
A;Molecule type: nucleic acid
A;Residues: 1-304 <GON>
A;Note: sequence extracted from NCBI backbone (NCBIN:133270, NCBIP:133271)
C;Superfamily: interphotoreceptor retinoid-binding protein
C;Keywords: duplication
RESULT 10

147079

follistatin - sheep (fragment)
c;Species: Ovis orientalis aries, Ovis ammon aries (domestic C;Date: 15-Oct-1996 *sequence_revision 15-Oct-1996 *text_cha C;Accession: 147079
R;Tisdall, D.J.; Hill, D.; Petersen, G.B.; Fleming, J.S.
J. Mol. Endocrinol. 8, 259-264, 1992
A;Title: Ovine follistatin: characterization of CDNA and exp A;Reference number: 147079; MUID:92337809; PMID:1632897
A;Accession: 147079
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-337 <TIS>
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Pred. No.
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R:Sugino, K.; Kurosawa, N.; Nakamura, T.; Takio, J. Biol. Chem. 268, 15579-15587, 1993
A;Title: Molecular heterogeneity of follistatin, A;Reference number: A47139; MUID:93340158; PMID:03.6ccession: A47139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: GB:M36512; GB:M36513; NID:g164461
R;Ueno, N.; Ling, N.; Ying, S.Y.; Esch, F.; Shimasaki, S.; Guillemin, R.
Proc. Natl. Acad. Sci. U.S.A. 84, 8282-8286, 1987
A;Title: Isolation and partial characterization of follistatin: a single-chain A;Reference number: A39969; MUID:88068578; PMID:3120188
A;Accession: A39969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biochem. Biophys. Res. Commun. 132, /1/ /2, 230
A:Title: Porcine follistatin gene structure supports two forms
A:Reference number: A27701; MUID:88209050; PMID:3365249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   follistatin precursor - pig
N;Contains: follistatin short form precursor
C;Speciles: Sus scrofa domestica (domestic pig)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 17-Nov-2000
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 17-Nov-2000
C;Accession: A27701; A40064; B40064; A39969; A47139
R;Shimasaki, S; Koga, M; Esch, F; Mercado, M; Cooksey, K.; Koba, A.; Lin
Biochem. Biophys. Res. Commun. 152, 717-723, 1988
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                                                                                                  F:30-344/Product: follistatin #status predicted <MAT>
F:30-317/Product: follistatin, short splice form #status predicted
F:114-164/Domain: Kazal proteinase inhibitor homology <KPT8>
                                                                                                                                                                        C;Superfamily: follistatin; Kazal proteinase inhibitor C;Keywords: alternative splicing; glycoprotein; monomer F;1-29/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                               A; Molecule type: protein
A; Residues: 30-35;120-128;284-292;312-344 .
C; Comment: Follistatin inhibits release of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GB:M19529; NID:g164458; PIDN:AAA31036.1; R;Esch, F.S.; Shimasaki, S.; Mercado, M.; Cooksey, K.; Ling, Mol. Endocrinol. 1, 849-855, 1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
A; Residues: 1-317 <ES
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A; Residues: 1-344 <ESC1>
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les 6; Conserv
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       Similarity 6; Conserv
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13 PTSSEQ

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protein F22C12.16 [imported] - Arabidopsis thaliana
C.Species: Arabidopsis thaliana (mouse-ear cress)
C.Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 31-Mar-2001
C.Accession: E96665
R.Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White
Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H
ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A; Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
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C;Date: 15-Oct-1996 #sequence_revision 15-Oct-1996 #text_change 17-Nov-2000
C;Accession: I45894
R;Houde, A; Lusster, J.G.; Ethier, J.F.; Gagnon, C.; Silversides, D.W.
Mol. Reprod. Dev. 37, 391-397, 1994
A;Title: Cloning and tissue expression of bovine follistatin cDNA.
A;Reference number: I45894; MUID:94280841; PMID:8011323
A;Accession: I45894
A;Status: preliminary; translated from GB/EMBL/DDBJ
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E96665
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C;Species: Bos primigenius taurus (cattle)
C;Date: 16-Aug-1996 #sequence_revision 16-Aug-1996 #text_change 13-Aug-1999
C;Accession: I45915
R;Liou, G.I.; Fong, S.
Vision Res. 26, 1645-1653, 1986
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A; Residues: 1-364 <LIO>
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C;Accession: S14441
R;Liou, G.I.; Fong, S.L.; Gosden, J.; van Tuinen, P.; Ledbetter, D.H.; Christie, Somat. Cell Mol. Genet. 13, 315-323, 1987
A;Title: Human interstitial retinol-binding protein (IRBP): cloning, partial sequence number: S06277; MUID:88321820; PMID:3455009
A;Accession: S14441
A;Status: preliminary
                                                                                                                                                A; Molecule type: protein A; Molecule type: protein A; Residues: 1-31;32-38;39-72;73-129;130-143;144-171;172-199;200-213;214-441 <BOV>C; Superfamily: interphotoreceptor retinoid-binding protein C; Keywords: duplication; glycoprotein
                                                                                                                                                                                                                                                                                                                                                       retinol-binding protein, interstitial - bovine (fragments)
C;Species: Bos primigenius taurus (cattle)
C;Date: 19-Mar_1997  #sequence_revision 01-Aug-1997  #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; 9 ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W. A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis A;Reference number: A86141; MUID:21016719; PMID:11130712 A;Accession: E96665
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A; Residues: 1-411 <STO>
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US-10-258-951-54
US-10-258-951-54
US-10-258-198-2
US-10-308-128-65
US-10-308-128-65
US-10-303-138A-13021
US-10-233-138A-13021
US-10-218-102-365
PCT-USO2-32727-19622
US-10-057-498-1662
PCT-USO2-32727-16184
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GENERAL INFORMATION:
APPLICANT: The Burnham Institute
APPLICANT: Reed, John C.
APPLICANT: Guo, Bin
TITLE OF INVENTION: Methods for Identifying Modulators
TITLE OF INVENTION: Apoptosis
FILE REFERENCE: FP-LJ 5483
CURRENT APPLICATION NUMBER: PCT/US02/38191
CURRENT FILING DATE: 2002-11-27
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PRIOR APPLICATION NUMBER: US 60/334,149
PRIOR TILING DATE: 2001-11-28
NUMBER OF SEQ ID MOS: 28
SOFTWARE: FastSEQ for Windows Version 4.0
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	Sequence 738, App	Sequence 11127, A	Sequence 11127, A	Sequence 18175, A	Sequence 18175, A	Sequence 24556, A	Sequence 24556, A	Sequence 7217, Ap	Sequence 7217, Ap	Sequence 23986, A	Sequence 23986, A	Sequence 1219, Ap	Sequence 4348, Ap	Sequence 1219, Ap	Sequence 2249, Ap	Sequence 2249, Ap	Sequence 27998, A	Sequence 2995, Ap	Sequence 27998, A

## US-10-196-793A-46 US-10-196-793A-46 Sequence 46, Application US/10196793A GENERAL INFORMATION: PRIOR FILING DATE: 2001-07-17 NUMBER OF SEQ ID NOS: 61 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 46 APPLICANT: ROSENBLUM, MARTIN G. APPLICANT: LIU, YUVINIO: THERAPEUTIC AGENTS COMPRISING PRO-APOPTOTIC PROTEINS FILE REFERENCE: CLFR:012US CURRENT APPLICATION NUMBER: US/10/196,793A CURRENT FILING DATE: 2002-07-17 PRIOR APPLICATION NUMBER: 60/360,361 PRIOR FILING DATE: 2002-02-28 PRIOR APPLICATION NUMBER: 60/332,886 PRIOR FILING DATE: 2001-11-66 PRIOR APPLICATION NUMBER: 60/306,091 PRIOR APPLICATION NUMBER: 60/306,091 ORGANISM: Homo sapiens 10 GGPTSSEQI 18 11 GGPTSSEQI 19 Local Similarity nes 9; Conserv 191 Conservative 47.4%; 100.0%; 0; Score 9; DB 6; Pred. No. 0.056; Mismatches Length 191; 0; Gaps

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Query Match
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                                                                          APPLICANT: Jones, Robert
APPLICANT: Carter, Darrick
APPLICANT: Barth, Brenda
APPLICANT: Douglass, John
TITLE OF INVENTION: Compositions and Methods for
FILE REFERENCE: 210121.514C1
CURRENT APPLICATION NUMBER: PCT/US02/32727
CURRENT FILING DATE: 2002-10-11
NUMBER OF SEQ ID NOS: 30992
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 5
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                                              SEQ ID NO 10714
LENGTH: 94
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APPLICANT: Skeiky, Yasir
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; SEQ ID NO 10714
, LENGTH: 94
; TYPE: PRT
; ORGANISM: Propioni acnes
US-10-057-498-10714
RESULT 7
US-10-258-951-54
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                                                                                                                                                                                                                                                   ; ORGANISM: Staphylococcus epidermidis US-10-092-411A-5332
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GENERAL INFORMATION:

APPLICANT: Lynn DUCCETTE ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCC

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCC

TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPBUTICS

FILE REFERENCE: 032796-101

CURRENT APPLICATION NUMBER: US/10/092,411A

CURRENT FILING DATE: 2002-03-07

PRIOR APPLICATION NUMBER: US 09/134,001

PRIOR FILING DATE: 1998-08-13

PRIOR APPLICATION NUMBER: US 60/064,964

PRIOR APPLICATION NUMBER: US 60/055,779

PRIOR APPLICATION NUMBER: US 60/055,779

PRIOR FILING DATE: 1997-08-14

NUMBER OF SEQ ID NOS: 5676

SEQ ID NO 5332

LENGTH: 120
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Best Local Similarity
Matches 6; Conserv
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Best Local
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CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 29212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Persing, David TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acne FILE REFERENCE: 210121.514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Mitcham, Jennifer APPLICANT: Skeiky, Yasir
                                                                                                                                                                                                                                                                                            TYPE: PRT
                                                                                   54 PTSSEQ 59
                                                                                                                         13 PTSSEQ 18
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Sequence 54, Application US/10258951 GENERAL INFORMATION:

APPLICANT:

Agarwal, Pankaj

Murdock, Paul R.

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US-09-134-000C-6041

Sequence 6041, Application US/09134000C

GENERAL INFORMATION:
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
TITLE OF INVENTION: ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 0332
                                                                                                                                                                                     Query Match
Best Local Similarity
6; Conserv:
                 RESULT 9
US-10-085-198-2
; Sequence 2. Application US/10085198
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                               ; TYPE: PRT ; ORGANISM: Enterococcus faecalis US-09-134-000C-6041
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US-10-258-951-54
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CURRENT FILING DATE: 2002-10-28
PRIOR APPLICATION NUMBER: PCT/US01/13360
PRIOR FILING DATE: 2001-04-26
PRIOR FILING DATE: 2000-04-27
PRIOR APPLICATION NUMBER: 60/199,963
PRIOR FILING DATE: 2000-04-27
PRIOR APPLICATION NUMBER: 60/203,336
PRIOR FILING DATE: 2000-05-11
PRIOR APPLICATION NUMBER: 60/207,087
PRIOR APPLICATION NUMBER: 60/207,087
PRIOR FILING DATE: 2000-05-25
PRIOR APPLICATION NUMBER: 60/207,546
PRIOR APPLICATION NUMBER: 60/207,546
PRIOR APPLICATION NUMBER: 60/207,546
PRIOR APPLICATION NUMBER: 60/207,546
PRIOR FILING DATE: 2000-05-26
                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/134,000C
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/055,778
PRIOR FILING DATE: 1997-08-15
PRIOR FILING DATE: 1997-08-15
NUMBER OF SEQ ID NOS: 6812
SOFTWARE: Patentin version 3.1
SEQ ID NO 6041
LENGTH: 748
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SEQ ID NO 54
LENGTH: 586
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APPLICANT:
APPLICANT: Alsobrook et al.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: NOVEL COMPOUNDS FILE REFERENCE: GP50025
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Smith, Randall F.
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Pred. No.
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Pred. No. le+02;
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DB
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RESULT 10
US-10-308-128-65
Sequence 65, Application US/10308128
GENERAL INFORMATION:
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                                                                                                                                                                                        SEQ ID NO 65
LENGTH: 16
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Best Local
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                                                                                                                                                                                                                                                                           APPLICANT: Bristol-Myers Squibb Company
TITLE OF INVENTION: POLYNUCLECTIDES ENCODING NOVEL HUMAN MITOCHONDRIAL AND MICROSO
TITLE OF INVENTION: GLYCEROL-3-PHOSPHATE ACYLTRANSFERASES AND VARIANTS THEREOF
FILE REFERENCE: D019 NP
GURRENT APPLICATION NUMBER: US/10/308,128
CURRENT APPLICATION NUMBER: US/10/308,128
PRIOR APPLICATION NUMBER: US. 60/334,904
                                                                                                                                                                                                                             SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                          PRIOR FILING DATE: 2001-11-30
NUMBER OF SEQ ID NOS: 205
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PRIOR APPLICATION NUMBER: 60/311,981
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PRIOR APPLICATION NUMBER: 60/271,646
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PRIOR FILING DATE: 2001-08-29
PRIOR APPLICATION NUMBER: 60/272,405
PRIOR FILING DATE: 2001-02-28
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                                                                 Local Similarity
nes 5; Conserv
                                11 GGPTS 15
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6 GGPTS 10
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FILING DATE: 2001-08-16
APPLICATION NUMBER: 60/271,840
FILING DATE: 2001-02-27
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FILING DATE: 2001-06-20
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                                                                 Score 5; DB (; Pred. No. 91 0; Mismatches
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No. 3.9e+02;
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RESULT 11 US-60-427-045-298

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CURRENT APPLICATION NUMBER: US/10/203,138A
CURRENT EILING DATE: 2002-08-02
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILLING DATE: 04 February 2000 (04.02.00)
PRIOR FILLING DATE: 26 May 2000 (26.05.00)
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILLING DATE: 03 August 2000 (03.08.00)
PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR FILLING DATE: 03 OCCODET 2000 (03.10.00)
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR FILLING DATE: 27 September 2000 (27.09.00)
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILLING DATE: 21 September 2000 (21.09.00)
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR APPLICATION NUMBER: US 60/234,687
                                                                             ; OTHER INFORMATION: US-10-203-138A-13021
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                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 15438
SOFTWARE: Molecular Dynamics Sequence Listing Engine SEQ ID NO 13021
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Best Local (
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Matches
                   Best Local Similarity
                                       Query Match
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APPLICANT: Underwood, Lowell
TITLE OF INVENTION: CA125 Gene and its Use
TITLE OF INVENTION: Interventions
FILE REFERENCE: 022438.44514
CURRENT FILLING DATE: 2002-11-15
CURRENT FILLING DATE: 2002-11-15
NUMBER OF SEO ID NOS: 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: ANALYSIS OF GENE EXPRESSION IN BT 474
FILE REFERENCE: PB 0004 WO 8
FILE REFERENCE: PB 0004 WO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: The Board of Trustees of the University of Arkansas APPLICANT: O'Brien, Timothy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Molecular Dynamics, Inc.
                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                             PRIOR FILING DATE: 30 June
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                     FEATURE:
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5; Conserva
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ilarity 100.0%;
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Pred. No.
                   Score 5; DB 6; Le
Pred. No. 1.9e+02;
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 Mismatches
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; OTHER INFORMATION: synthetic US-10-218-102-365
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PRIOR FILING DATE: 2001-09-10
PRIOR APPLICATION NUMBER: US 60/324,899
PRIOR FILING DATE: 2001-09-25
PRIOR FILING DATE: 2002-01-25
PRIOR FILING DATE: 2002-01-25
PRIOR APPLICATION NUMBER: US 60/352,103
PRIOR FILING DATE: 2002-01-25
PRIOR FILING DATE: 2002-01-25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 19622, Application PC/TUS0232727 GENERAL INFORMATION:
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SEQ ID NO 19622
                CURRENT APPLICATION NUMBER: PCT/US02/32727
CURRENT FILING DATE: 2002-10-11
NUMBER OF SEQ ID NOS: 30992
                                                                                      APPLICANT: Douglass, John TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acne FILE REFERENCE: 210121.514C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Vielmetter, Jost
TITLE OF INVENTION: Protein Design Automation for Protein Libraries
FILE REFERENCE: A-67229-11/RFT/RMS/RMK
CURRENT APPLICATION NUMBER: US/10/218,102
CURRENT FILING DATE: 2002-08-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 2002-01
NUMBER OF SEQ ID NOS: 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 09/927,790 PRIOR FILING DATE: 2001-08-10
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ORGANISM: Artificial sequence
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Wang, Siqing
Jen, Shyian
Lodes, Michael
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Desjarlais, John R.
Hayes, Robert J.
                                                                                                                                                        Carter, Darrick
Barth, Brenda
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Jones, Robert
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Bhatia, Ajay
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RESULT 15
US-10-057-498-19622
Squence 19622, Application US/10057498
SGEMERAL INFORMATION:
APPLICANT: Mitcham, Jennifer
APPLICANT: Skeiky, Yasir
APPLICANT: Skeiky, Yasir
APPLICANT: Dersing, David
TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acnes V
FILE REFERENCE: 210121:514
CURRENT APPLICATION NUMBER: US/10/057,498
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 29212
SEQ ID NO 19622
LENGTH: 50
LENGTH: 50
CORGANISM: Propioni acnes
US-10-057-498-19622
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26.3%; Score 5; DB 1; Length 50; Best Local Similarity 100.0%; Pred. No. 2e+02; Matches 5; Conservative 0; Mismatches 0; Indels
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26.3%; Score 5; DB 6; Length 50; Best Local Similarity 100.0%; Pred. No. 2e+02; Matches 5; Conservative 0; Mismatches 0; Indels
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; TYPE: PRT
; ORGANISM: Propioni | acnes
PCT-US02-32727-19622
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35 GPTSS 39
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Sequence 7, Appli Sequence 2, Appli Sequence 2, Appli Sequence 242, App Sequence 242, App Sequence 242, App

Sequence 261, App Sequence 105329, Sequence 45, Appl Sequence 46, Appli Sequence 4, Appli

PCT US99-24747-5
PCT-US99-24747-6
US-09-177-315-1
S US-09-177-315-1
S US-09-177-315-5
S US-09-177-315-6
PCT-US99-24747-4
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US-09-177-315-7
US-09-177-313-7
US-08-18-18-23-3-3
US-08-483-233-3
US-08-483-233-3
US-08-483-233-3

Sequence 12, Appli Sequence 13, Appl Sequence 5, Appli Sequence 6, Appli Sequence 7, Appli Sequence 6, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli

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FEATURE: OTHER INFORMATION: Synthetic based on consensus sequence of Homo OTHER INFORMATION: sapiens, Mus musculus, and Rattus norvegicus
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TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR FILING DATE: 1998-10-05
PRIOR FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FASLEEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: VARIANT
LOCATION: (6)...(10)
OTHER INFORMATION: Xaa at 8 can be E or D; Xaa
OTHER INFORMATION: Xaa at 8 can be L or P; Xaa
OTHER INFORMATION: Xaa at 10 can be S or G;
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Sequence 3, Appli
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Sequence 5, Appli
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            GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REPERBNCE: 6029-1754
CURRENT APPLICATION NUMBER: PCT/US99/24747
NUMBER OF EXO ID NOS: 34
SOFTWARE: PatentIN Ver. 2.0
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANN: Johnson Jr., Eugene M.
APPLICANN: Johnson Jr., Eugene M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
CURRENT APPLICATION NUMBER: PCT/US99/24747
CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 2
LENGTH: 70
                                                                                                                                                                                                                                                             Length 20;
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No. 0.056;
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5. 0.17;
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Best Local Similarity 100.0%; Pred. No. 0.0
Matches 9; Conservative 0; Mismatches
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100.0%; Pred. No. 0.1
Live 0; Mismatches
                    CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR PELLOR DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 5
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application PC/TUS9924747 GENERAL INFORMATION:
                                                                                                                                                                                                   ) ORGANISM: Rattus norvegicus US-09-876-204-5
      FILE REFERENCE: 50013/011001
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Best Local Similarity 100.
Matches 9; Conservative
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ORGANISM: Homo sapiens
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PCT-US99-24747-2
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PCT-US99-24747-1
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I.FNGTH: 70
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  100.0%; Pred. No. 4e-07;
Live 0; Mismatches 0; Indels
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                                                                                                                                                                       Sequence 3, Application US/09876204
; Sequence 3, Application US/09876204
; GENERAL INFORMATION:
    TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
    TITLE OF INVENTION: REAGENTS AND METHODS
; FILE REFERENCE: 50013/011001
; CURRENT APPLICATION NUMBER: US/09/876,204
; CURRENT FILING DATE: 2001-06-06
; PRIOR PELLING DATE: 1998-10-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
TILLE REPERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FASTSEQ for Windows Version 4.0
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Sequence 5, Application US/09876204

GENERAL INFORMATION:
APPLICATE GORDON C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
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                                                              1 MDGSGXXXXXGGPTSSEQI 19
                      19; Conservative
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Matches 9; Conservative
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; ORGANISM: Mus musculus
US-09-876-204-4
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Best Local Similarity
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LENGTH: 20
TYPE: PRT
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LENGTH: 20
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; Sequence 2, Application US/09177315
; GENERAL INFORMATION:
; APPLICANT: Johnson Jr., Eugene M.
; APPLICANT: Johnson Jr., Eugene M.
; TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
; FILE REFERENCE: 6029-5756
; CURRENT APPLICATION NUMBER: US/09/177,315
; CURRENT FILING DATE: 1998-10-22
; NUMBER OF SEQ 1D NOS: 34
; SOFTWARE: Patentin Ver. 2.0
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GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
CURRENT APPLICATION NUMBER: US/09/177,315
CURRENT FILING DATE: 198-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
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GENERAL INFORMATION:

APPLICANT: Johnson Jr., Eugene M.

APPLICANT: Easton, Rachel M.

1TILE OF INVENTION: Neuroprotective Truncated BAX Polypeptides

FILE REFERENCE: 6029-5756
                                        47.4%; Score 9; DB 15; Length 70; 100.0%; Pred. No. 0.17; Live 0; Mismatches 0; Indels
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100.0%; Pred. No. 0.1
Live 0; Mismatches
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100.08;
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Matches 9; Conservative
                                          Query Match 47.4
Best Local Similarity 100.
Matches 9; Conservative
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Best Local Similarity 100.
Matches 9; Conservative
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| LENGTH: 70
| TYPE: PRT
| ORGANISM: Mus musculus
| US-09-177-315-2
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; ORGANISM: Homo sapiens
US-09-177-315-5
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US-09-177-315-5
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  US-09-177-315-1
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LENGTH: 70
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                                                                                    Sequence 5, Application PC/TUS9924747
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
CURRENT APPLICATION UNDER: PCT/US99/24747
CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5
LENGTH: 70
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GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
CURRENT APPLICATION NUMBER: PCT/US99/24747
CURRENT FILIG DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PatentIn Ver. 2.0
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Johnson Jr., Eugene M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: |6029-5756
CURRENT APPLICATION NUMBER: US/09/177,315
CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
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100.0%; Pred. No. 0.17;
1ive 0; Mismatches
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Best Local Similarity 100.
Matches 9; Conservative
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Matches 9; Conservative
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; ORGANISM: Mus musculus
PCT-US99-24747-6
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LENGTH: 70
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
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11 GGPTSSEQI 19
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PCT-US99-24747-6
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US-09-177-315-1
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LENGTH: 70
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PCT-US99-24747-3
| Sequence 3, Application PC/TUS9924747
| GENERAL INFORMATION:
| APPLICANT: Johnson Jr., Eugene M.
| APPLICANT: Baston, Rachael M.
| TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
| FILE REFERENCE: 6629-1754
| CURRENT FILING NUMBER: PCT/US99/24747
| WUMBER OF SEQ ID NOS: 34
| SSEY HARE: Patentin Ver. 2.0
| SEQ ID NO 3
| LENGTH: 78
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GENERAL INFORMATION:
APPLICANT: Baston, Rachael M.
APPLICANT: Baston, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
CURRENT APPLICATION NUMBER: PCT/US99/24747
CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4
LENGTH: 78
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Query Match

47.4%; Score 9; DB 1; Length 78; Best Local Similarity 100.0%; Pred. No. 0.19; Matches 9; Conservative 0; Mismatches 0; Indels
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100.0%; Pred. No. 0.19;
Live 0; Mismatches
                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/177,315
CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 6
LENGTH: 70
                                                                                                                                                            Query Match

Query Match

Best Local Similarity 100...

Conservative
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Matches 9; Conservative
                                                                                                          TYPE: PRT
CORGANISM: Mus musculus
US-09-177-315-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                     11 GGPTSSEQ# 19
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us-09-876-204-1.rapb

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GenCore version 5.1.3 Copyright (c) 1993 - 2003 Compugen Ltd.
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OM protein - protein search, using sw model

January 7, 2003, 12:39:54 ; Search time 7.30769 Seconds (without alignments) 49.274 Million cell updates/sec Run on:

US-09-876-204-1 19 Title: Perfect score:

1 MDGSGXXXXXGGPTSSEQI 19 Sequence:

Gapop 60.0 , Gapext 60.0 OLIGO Scoring table:

117078 seqs, 18951520 residues Searched:

0 Word size :

117078 Total number of hits satisfying chosen parameters:

length: 0 length: 2000000000 Minimum DB seq Maximum DB seq

Post-processing: Listing first 45 summaries

Database :

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

	Description	Sequence 1, Appli	Sequence 3, Appli	4	5,	Sequence 2, Appli	Sequence 16, Appl	Sequence 281, App	257,	Sequence 41953, A	Sequence 35963, A	Sequence 38835, A	Sequence 143, App	Sequence 948, App		Sequence 5718, Ap	Sequence 424, App		Sequence 2, Appli	
	ID	US-09-876-204-1	US-09-876-204-3	US-09-876-204-4	US-09-876-204-5	US-09-033-525-2	US-09-876-889-16	US-09-205-658-281	US-09-205-658-257	US-09-864-761-41953	US-09-864-761-35963	US-09-864-761-38835	US-10-001-835-143	US-09-764-869-948	US-09-764-853-501	US-09-738-626-5718	US-09-764-870-424	US-09-738-626-4896	US-09-054-141-2	US-09-886-055-81
	DB	10	10	10	10	10	10	10	10	10	10	10	6	10	10	σ	10	σ	10	10
	Query Match Length DB	19	20	20	20	331	154	20	37	38	49	20	77	83	116	243	253	258	275	324
æ	Query Match	73.7	47.4	47.4	47.4	47.4	31.6	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
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10 US-09-884 441-390 10 US-06-884-441-483 9 US-10-063-547-134 12 US-10-006-867-134 12 US-10-052-586-386 9 US-09-866-570A-67 9 US-09-866-570A-67 9 US-09-902-772-2 9 US-09-902-772-4 12 US-09-902-772-4 13 US-09-902-772-4 14 US-09-902-772-4 15 US-09-902-772-4 16 US-09-902-772-4 17 US-09-902-773-6 18 US-09-925-297-57-7 19 US-09-950-788-7 10 US-09-950-788-7 11 US-09-950-788-7 11 US-09-950-788-7 11 US-09-950-788-7	00
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## ALIGNMENTS

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: VARIANT
LOCATION: (6)...(10)
OTHER INFORMATION: Xaa at 6 can be E or D; Xaa at 7 can be Q or OTHER INFORMATION: Xaa at 8 can be L or P; Xaa at 9 can be R or OTHER INFORMATION: Xaa at 10 can be S or G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 19;
                                                                                                            GENERAL INFORMATION:
APPLICANT: Gordon C. Shore et al.
TITLE OF INVENTION: BRAY-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR PILING DATE: 1998-10-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 73.7%; Score 14; DB 10; L Best Local Similarity 100.0%; Pred. No. 1.2e-08; Matches 19; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 7
SOFWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 19
TYPE: PRT
                                                         ; Sequence 1, Application US/09876204
; Patent No. US20020052316A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
RESULT 1
US-09-876-204-1
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; Sequence 3, Application US/09876204 ; Patent No. US20020052316A1 1 MDGSGXXXXXGGPTSSEQI 19 1 MDGSGXXXXXGGPTSSEQI 19 RESULT 2 US-09-876-204-3 qq ò

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Gaps

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Indels

Conservative

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APPLICANT: Yarkoni, Shai
APPLICANT: Yarkoni, Shai
APPLICANT: Ben-Yehudah, Ahmi
APPLICANT: Agailan, Rami
APPLICANT: Agailan, Rami
APPLICANT: Agailan, Rami
APPLICANT: Lorberboun-Galaki, Haya
TITLE OF INVENTION: CHIMERIC PROTEINS WITH CELL-TARGETING
TITLE OF INVENTION: SPECIFICITY AND APOPTOSIS-INDUCING ACTIVITIES
FILE REFERENCE: 9457-009-999
CURRENT APPLICATION NUMBER: US/09/033,525
CURRENT APPLICATION NUMBER: US/09/033,525
SOFTWARE: FastSEQ for Windows Version 3.0
SOFTWARE: PastSEQ for Windows Version 3.0
SEQ ID NO 2
LENGTH: 331
TYPE: PRT
ORGANITY
                                                                                                                                         Gaps
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47.4%; Score 9; DB 10; Length 331;
Best Local Similarity 100.0%; Pred. No. 0.017;
Matches 9; Conservative 0; Mismatches 0; Indels
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Sequence 16, Application US/09876889

Patent No. US20020076715A1

GENERAL INFORMATION:
APPLICANT: Lodes, Machael J.
APPLICANT: Micham, Jennifer L.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR OVARIAN

TITLE OF INVENTION: CANCER THERAPY AND DIAGNOSIS
FILE REFERENCE: 210121.46663

CURRENT APPLICATION NUMBER: US/09/876,889

CURRENT FILING DATE: 2001-06-06

NUMBER OF SEQ ID NOS: 353

SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 31.6%; Score 6; DB 10; Length 154; Best Local Similarity 100.0%; Pred. No. 10; Matches 6; Conservative 0; Mismatches 0; Indels
                                                                                       47.4%; Score 9; DB 10; Length 20; 100.0%; Pred. No. 0.0016; ative 0; Mismatches 0; Indels
                     ; ORGANISM: Rattus norvegicus US-09-876-204-5
                                                                  Query Match
Best Local Similarity 100..
Lac 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo sapiens US-09-033-525-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo sapien
US-09-876-889-16
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LENGTH: 154
TYPE: PRT
                                                                                                                                                                                                                                                                                              RESULT 5
US-09-033-525-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
              APPLICANT: GOOTON C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
FITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT APPLICATION NUMBER: 09/166,028
FRIOR FILING DATE: 1998-10-05
FRIOR FILING DATE: 1998-10-05
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3
LENGTH: 20
TYPE: RRT
CORGANISM: Homo sapiens
US-09-876-204-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
US-09-876-204-4

S-09-876-204-4

Sequence 4, Application US/09876204

Patent No. US20020052316A1

GENERAL INFORMATION: Shore et al.

TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING

TITLE OF INVENTION: REAGENTS AND METHODS

TITLE OF INVENTION: REAGENTS AND METHODS

TURRENT APPLICATION NUMBER: US/09/876,204

CURRENT FILING DATE: 2001-06-06

PRIOR APPLICATION NUMBER: 09/166,028

PRIOR APPLICATION NUMBER: 09/166,028

PRIOR FILING DATE: 1998-10-05

NUMBER OF SEQ ID NOS: 7

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 4

LENTH: 20
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; Patent No. US20020052316A1
; GENERAL INFORMATION:
; APPLICANT; GOAGON C. Shore et al.
; TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
; TITLE OF INVENTION: REAGENTS AND METHODS
; FILE REFERENCE: 50013/011001
; CURRENT APPLICATION NUMBER: US/09/876,204
; CURRENT FILING DATE: 10901-66-66
; PRIOR FILING DATE: 1998-10-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                   47.4%; Score 9; DB 10; I 100.0%; Pred. No. 0.0016; Live 0; Mismatches 0;
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Best Local Similarity 100.
Matches 9; Conservative
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Best Local Similarity 100.
Matches 9; Conservative
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; ORGANISM: Mus musculus
US-09-876-20444
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US-09-876-204-5
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APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL F
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2.6

OTHER INFORMATION: EXPRESSED IN HERRY, SIGNAL = 3.2

OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 3.2

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 3.7

OTHER INFORMATION: EXPRESSED IN HUNG, SIGNAL = 3.7

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 3.9

OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 3.9

OTHER INFORMATION: EXPRESSED IN BETAL SIGNAL = 3.9

OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 2.8
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NUMBER OF SEQ ID NOS: 49117
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
SEQ ID NO 41953
LENGTH: 38
                                                                                                                                                                                                                                                                                  TITLE REFERENCE: AGENE EXPRESSION ANALYSI.
CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 2000-05-26
PRIOR FILING DATE: 2000-09-37
PRIOR FILING DATE: 2000-09
PRIOR FILING DATE: 2000-09
PRIOR FILING DATE: 2000-09-27
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/USO1/00667
PRIOR FILING DATE: 2001-01-30
PRIOR FILING DATE: 2001-01-30
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/USO1/00669
PRIOR APPLICATION NUMBER: PCT/USO1/00669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/US01/00664
FLING DAFE: 201-01-30
APPLICATION NUMBER: PCT/US01/00669
FILING DATE: 2001-01-30
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FILING DATE: 2001-01-30
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APPLICATION NUMBER: PCT/US01/00663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US01/00661
FLING DAFE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00670
FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/US01/00665 FILING DATE: 2001-01-30
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PRIOR FILING DATE: 2000-09-21
PRIOR PELICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: US 09/774,203
                                                                       Sequence 41953, Application US/09864761
Patent No. US20020048763A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 2001-01-30
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Best Local Similarity 100.
Matches 5; Conservative
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ORGANISM: Homo sapiens
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                                                                                                                         GENERAL INFORMATION
                                                  US-09-864-761-41953
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Patent No. US20010029617a1
GENERAL INFORMATION:
APPLICANT: RUNKUN, GARY
APPLICANT: OGG, SCOTT
TITLE OF INVENTION: IMPAIRED GLUCOSE TOLERANCE CONDITIONS
CURRENT FILING PATE: 1998-12-03
CURRENT FILING DATE: 1997-05.15
EARLIER APPLICATION NUMBER: 08/887,076
EARLIER FILING DATE: 1997-05-07
EARLIER FILING DATE: 1997-05-07
EARLIER FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 328
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 257
LENTH: 37
                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Ruvkun, Gary
APPLICANT: Ruvkun, Gary
APPLICANT: Ruvkun, Gary
TITLE OF INVENTION: THERAPEUTIC AND DIAGNOSTIC TOOLS FOR
TITLE OF INVENTION: IMPAIRED GLUCOSE TOLERANCE CONDITIONS
FILE REFERENCE: 00786/535104
CURRENT APPLICATION NUMBER: US/09/205,658
CURRENT FILING DATE: 1998-12-03
EARLIER APPLICATION NUMBER: 08/857,076
EARLIER FILING DATE: 1997-05-15
EARLIER FILING DATE: 1997-07-07
EARLIER FILING DATE: 1997-07-07
EARLIER FILING DATE: 1998-05-15
NUMBER OF SEO ID NOS: 328
SOFTWARE: FASCENCE OF WINDOWS VETSION 4.0
SEO ID NO 281
LENGTH: 20
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. 19;
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larity 100.0%; Pred. No. 32;
Conservative 0; Mismatches
                                                                                                               US-09-205-658-281
; Sequence 281, Application US/09205658
; Patent No. US20010029617A1
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100.0%; Pre
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US-09-205-658-281
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Best Local Similarity
5: Conserv
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Best Local Similarity
Matches 5; Conserv
12 GPTSS 16
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GGPTS 6
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GENERAL INFORMATION:
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
                                                                                                                                                                                                     ö
                                                                                                                                                                                                     Gaps
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; OTHER INFORMATION: EST_HUMAN HIT: BE707262.1, EVALUE 3.90e+00 US-09-864-761-35963
                                                                                                                              Length 49;
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OTHER INFORMATION: MAP TO AL031588.1
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 2.8
OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 1.9
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 2.9
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                                                                                                                           DB 10;
                                                                                                    26.3%; Scor.
100.0%; Pred. No. ...
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CURRENT APPLICATION NUMBER: US/09/864,761

CURRENT APPLICATION NUMBER: US/09/864,761

CURRENT APPLICATION NUMBER: US/09/864,761

CURRENT APPLICATION NUMBER: US/09/864,761

PRIOR APPLICATION NUMBER: US 60/180,312

PRIOR FILING DATE: 2000-02-04

PRIOR FILING DATE: 2000-03-05

PRIOR FILING DATE: 2000-08-03

PRIOR APPLICATION NUMBER: US 60/23.6

PRIOR FILING DATE: 2000-09-27

PRIOR FILING DATE: 2000-09-27

PRIOR FILING DATE: 2001-01-04

PRIOR FILING DATE: 2001-01-30

PRIOR FILING DATE: 2001-01-30

PRIOR PELING DATE: 2001-01-30

PRIOR FILING DATE: 2001-01-30

PRIOR PELING DATE: 2000-09-21

PRIOR APPLICATION NUMBER: PCT/US01/0567

PRIOR PELING DATE: 2000-09-21

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                                                                                                                           Query Match 26.3
Best Local Similarity 100.
Matches 5; Conservative
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ORGANISM: Homo sapiens
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1. Septiment the Us/0000476A1

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OTHER INFORMATION: MAP TO AL109942.4

OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 2.3

OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 1.5

OTHER INFORMATION: EXPRESSED IN FUNG, SIGNAL = 2.9

OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.2

OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2.3

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 2.3

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 1.3

OTHER INFORMATION: EXPRESSED IN HERAY, SIGNAL = 1.3

OTHER INFORMATION: EXPRESSED IN HEARY, SIGNAL = 1.3

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 2.4
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ORGANISM: Homo sapiens
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US-09-864-761-35963
                  13 PTSSE 17
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27 PTSSE 31
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Gaps
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Fatent No. US20020090672A1

GENERAL INFORMATION:

APPLICANT: Rosen et al.

TITLE OF INVENTION: NUMBER: US/09/764,853

CURRENT FILING DATE: 2001-01-17

Frior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 939

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 501

LENGTH: 116
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Best Local Similarity 100.0%; Pred. No. 85;
Matches 5; Conservative 0; Mismatches
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APPLICANT: HYASAH, MIKTRO
APPLICANT: CCHIAI, KEIKO
APPLICANT: CCHIAI, KEIKO
APPLICANT: YOKOI, HARUHIKO
APPLICANT: YOKOI, HARUHIKO
APPLICANT: SENOH, AKIHIRO
APPLICANT: SENOH, AKIHIRO
APPLICANT: OZAKI, AKIO
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFRENCE: 249-125
CURRENT APPLICATION NUMBER: US 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR FILING DATE: 2000-12-18
PRIOR FILING DATE: 2000-10-18
PRIOR FILING DATE: 2000-4-07
PRIOR FILING DATE: 2000-4-07
PRIOR FILING DATE: 2000-64-07
PRIOR FILING DATE: 2000-64-07
PRIOR FILING DATE: 2000-64-07
PRIOR FILING DATE: 2000-68-03
NUMBER OF SEQ ID NOS: 7059
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Publication No. US20020197605A1
GENERAL INFORMATION:
APPLICANT: NAKAGAWA, SATOSHI
APPLICANT: MIZOGUCHI, HIROSHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Corynebacterium glutamicum US-09-738-626-5718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
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                             13 PTSSE 17
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US-09-738-626-5718
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US-09-764-853-501
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LENGTH: 243
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APPLICANT: Macina, Roberto
APPLICANT: Greipon, Herve
APPLICANT: Cafferkey, Robert
APPLICANT: Cafferkey, Robert
APPLICANT: Cafferkey, Robert
APPLICANT: Liu, Chenghua
TITLE OF INVENTION: Compositions and Methods Relating to Ovary Specific Genes and Prc
FILE REFERENCE: DEX-027
CURRENT FILING DATE: 2001-11-20
PRIOR APPLICATION NUMBER: 60/249,997
PRIOR FILING DATE: 2000-11-20
NUMBER OF SEQ ID NOS: 228
SOFTWARE: Patentin version 3.1
SED ID NO 143
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NUMBER OF SEQ ID NOS: 2442
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 948
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Fatent No. US20020061521A1
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REPERENCE: PC007
CURRENT APPLICATION NUMBER: US/09/764,869
CURRENT FILING DATE: 2001-01-17
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  EXPRESSED IN HELA, SIGNAL = 3.1
EXPRESSED IN PLACENTA, SIGNAL = 3.1
EXPRESSED IN BONE MARROW, SIGNAL = 2.4
EXPRESSED IN HEART, SIGNAL = 2.7
EXPRESSED IN LUNG, SIGNAL = 2.7
SWISSPROT HIT: Q46378, EVALUE 4.70e+00
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Best Local Similarity 100.0%; Pred. No. 41;
Matches 5; Conservative 0; Mismatches
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Matches 5; Conservative
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Matches 5; Conservative
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ORGANISM: Homo sapiens
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CTHER INFORMATION: E:
OTHER INFORMATION: E:
CTHER INFORMATION: E:
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50 GPTSS 54
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Search completed: January 7, 2003, 12:46:23 Job time: 8.30769 secs

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sequence 13, Sequence 6, A Sequence 7, A Sequence 3, A Sequence 9, A Sequence 9, A Sequence 9, A Sequence 16, Sequence 16, Sequence 16, Sequence 116, Sequence 116, Sequence 116, Sequence 2, A Sequen

US-08-856-034-9 US-08-471-057-13 US-09-127-048-6 US-09-127-048-6 US-08-927-326-3 US-08-927-326-3 US-08-927-326-9 US-08-927-326-9 US-08-927-326-9 US-08-037-7428-9 US-09-037-7428-9 US-09-037-7428-9 US-09-031-035-416 US-09-071-035-416 US-08-14-085-1250-2

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Sequence 21, Applisequence 2, Applisequence 3, Applisequence 9, Applisequence 9, Applisequence 8, Applisequence 25, Applisequence 13, Applisequence 13, Applisequence 3, Applisequence 8, Applise
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49.891 Million cell updates/sec
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Sequence 4,
Sequence 5,
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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US-09-166-028-5
US-08-178-523-21
US-08-112-208C-3
US-08-112-208C-3
US-08-112-208C-9
US-08-248-819A-3
US-08-248-819A-3
US-08-248-819A-3
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US-08-248-819A-3
US-08-248-819A-3
US-08-248-819A-9
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US-08-37-646A-3
US-08-337-646A-3
US-08-337-646A-3
US-08-337-646A-3
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                                                                                                                                                                                                                                                                                                                                              262574 seqs, 29422922 residues
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                                                                              OM protein - protein search, using sw model
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Gapop 60.0 , Gapext 60.0
                                                                                                                                                                                                                                            MDGSGXXXXXGGPTSSEQI
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19
1 MDGSGXXXXV
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Maximum DB
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                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Gordon C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: BASCABNYS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT PELLING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FASTSEQ FOR Windows Version 4.0
SEQ ID NO 1
LENGTH: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3. Application US/09166028
Patent No. 6245885
GENERAL INFORMATION:
APPLICANT: GOTGON C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
TITLE OF INVENTION: REAGENTS AND METHODS
GURRENT APPLICATION NUMBER: US/09/166,028
CURRENT FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FASLSEQ for Windows Version 4.0
SEQ ID NO 3
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COTHER INFORMATION: Xaa at 6 can be E or D; Xaa at 7
O'THER INFORMATION: Xaa at 8 can be L or P; Xaa at 9
COTHER INFORMATION: Xaa at 10 can be S or G;
US-09-166-028-1
ALIGNMENTS
                                                                                                              ; Sequence 1, Application US/09166028
; Patent No. 6245885
                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
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                                                                   RESULT 1
US-09-166-028-1
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US-09-166-028-3
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Matches
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US-08-337-646A-9 US-08-856-531-2 US-08-856-531-3

Sequence Sequence

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Sequence Sequence 8

US-08-856-034-2 US-08-856-034-3 US-08-856-034-8

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GENERAL INFORMATION:
APPLICANT: Guastella, John
TILLE OF INVENTION: Genes Coding For Bcl-y, a Bcl-2
TITLE OF INVENTION: Homologue
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
ADDRESSE: APRENE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: 1100 New York Avenue, N.W., Suite 600
CITY: Mashington
STATE: DC
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   47.4%; Score 9; DB 1; Length 25; 100.0%; Pred. No. 0.0027; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. STREET: 1100 New York Avenue, N.W., Suite 600 CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 21, Application US/08978523
Sequence 21, Application US/08978523
Betent No. 5883229
GENERAL INFORMATION:
APPLICANT: Guastella, John
TITLE OF INVENTION: Genes Coding For Bcl-y, a Bcl-2
TITLE OF INVENTION: Homologue
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
ZIP: 20005
COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
FILING DATE: herewith
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1483.0140001
                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/798,897
FILING DATE: February 11, 1997
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: ESEMON, RODERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 1483
TELEPOMUNICATION INFORMATION:
TELEPHONE: 200-371-2600
TELEPHONE: 202-371-2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
STRANDEDNESS: not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 21:
SEQUENCE CHARACTERISTICS:
LENGTH: 25 amino acids
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Best Local Similarity 100...
Generative 9; Conservative
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MOLECULE TYPE: peptide
US-08-798-897-21
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Patent No. 5789201
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US-08-978-523-21
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US-09-166-028-5
Sequence 5, Application US/09166028
Fatent No. 6245885
GENERAL INFORMATION:
TITLE OF INVORMATION:
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/166,028
CURRENT FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FASTSEQ for Windows Version 4.0
                                                                                           47.4%; Score 9; DB 4; Length 20; 100.0%; Pred. No. 0.0022; Live 0; Mismatches 0; Indels
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Pred. No. 0.0022;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                     Sequence 4, Application US/09166028
Patent No. 6245885
GENERAL INFORMATION:
APPLICANT:
TITLE OF INVENTION: RAGENTS AND METHODS:
FILE REFERENCE: 50013/0011001
CURRENT APPLICATION UNMERS: US/09/166,028
CURRENT FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       47.4%; Score 9; DB 4
100.0%; Pred. No. 0.C
Live 0; Mismatches
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100.08; Pre
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100...
9; Conservative
                                                                                         Query Match 47.4
Best Local Similarity 100.
Matches 9; Conservative
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Best Local Similarity 100.
Matches 9; Conservative
                 ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-166-028-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Mus musculus
US-09-166-028-4
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US-08-798-897-21
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US-09-166-028-4
LENGTH: 20
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LENGTH: 20
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                                                                                                                                        APPLICANT: KORSMERER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend Khourie and Crew
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Townsend and Townsend Khourie and Crew STREET: 379 Lytton Avenue
                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1; LA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         47.4%; Score 9; DB 1
100.0%; Pred. No. 0.C
tive 0; Mismatches
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TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15726A-000610
                                                                                                                                                                                                                                                                                                                                                                                                            ..., Ve
.....beR: US/08/112,208C
26-AUG-1993
NI: 536
TNINC
                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                        ; Sequence 3, Application US/08112208C; Patent No. 5691179; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 8, Application US/08112208C Patent No. 5691179
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY AGENT INFORMATION:
NAME: Smith, William M
REGISTATION UNBER: 30,223
REPERENCE/DOCKET NUMBER: 1572c
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
TELEFAX: (415) 326-2400
INFORMATION FOR SEO ID NO: 3:
                                                                                                                                                                                                               ADDRESSEE: Townsencerrenger: 379 Lytton Avenue
                                                                                                                                                                                                                                                                                                                                                       Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match
Best Local Similarity 100..
                                                                                                                                                                                                                                                                                                              ZIP: 94301
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        single
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LOCATION: 1..192
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: 26-AUG
                                                                                                                                                                                                                                                         CITY: Palo Alto
STATE: California
COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Palo Alto
California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
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 11 GGPTSSEQI 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 94301
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                                                     RESULT 8
US-08-112-208C-3
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                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: F
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                                                                                                                                                                                                                                                                                                                                                 47.4%; Score 9; DB 2; Length 25; 100.0%; Pred. No. 0.0027; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/112,208C
FILING DATE: 26-AUG-1993
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 15726A-000610
TELEPHONE: (415) 326-2400
TELEFAN: (415) 326-2400
TELEFAN: (415) 326-2400
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2: Townsend and Townsend Khourie and Crew 379 Lytton Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
UNMER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
us 08/798,897
             FILING DATE: February 11, 1997
CLASSIFICATION: 424
ATTORNEY AGENT INFORMATION:
NAME: Esmond, Robert W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 1483.014
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
INFORMATION FOR SEQ ID NO: 21:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/08112208C Patent No. 5691179 GENERAL INFORMATION:
                                                                                                                                                                                                                                    TYPE: amino acid
STRANDEDNESS: not relevant
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     192 amino acids
                                                                                                                                                                                                                      LENGTH: 25 amino acids
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Best Local Similarity 100.
Matches 9: Conservative
                                                                                                                                                                                                                                                                          ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-08-978-523-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: protein
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Palo Alto
STATE: California
COUNTRY: US
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STREET: 37
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RESULT 11
US-08-248-819A-2
Sequence 2, Application US/08248819A
Sequence 2, Application US/08248819A
Setent No. 5700638
JILLO BEREAL INFORMATION:
APPLICANT: KORSMEYER, Stanley J.
TILE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 60
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend Khourie and Crew
STREET: 3-Alton Avenue
      Length 192;
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Fatent No. 5700638
GENERAL INFORMATION:
APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 60
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend Khourie and Crew:
STREET: 379 Lytton Avenue
CITY: Palo Alto
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WEDTOM TYPE: FIDPPY disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
CONFRANTO SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/248,819A
FILING APPLICATION: 435
PRIOR APPLICATION THEORY
APPLICATION NUMBER: US 08/112,208
FILING DATE: 26-AUG-1993
ATTOMEX/AGENT INFORMATION:
ANALYSEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Smith, William M
REGISTATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 1572
TELECOMMUNICATION INFORMATION:
TELEFAN: (415) 326-2400
TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : 192 amino acids
amino acid
      Query Match
Best Local Similarity 100.
Matches 9; Conservative
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Best Local Similarity 100.
Matches 9; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 94301
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                           STREET: 379 Lytton
CITY: Palo Alto
STATE: California
COUNTRY: US
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MEDIUW TYPE: Floppy disk
MEDIUW TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURREWT APPLICATION DATA:
APPLICATION NUMBER: US/08/112,208C
ATORNEY/AGENT INFORMATION:
NAME: Saith, William # REGISTRATION NUMBER: 15726A-000610
TELECOMMUNICATION NUMBER: 15726A-000610
TELEPHONE: (415) 326-2400
TELEPHONE: (415) 326-2420
TELEPHONE: (415) 326-2420
TELEPHONE: (415) 326-2420
TELEPHONE: (415) 326-2420
TELEFRAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 9:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
TUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend Khourie and Crew
STREET: 379 Lytton Avenue
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FILING DATE: 26-AUG-1993
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1; LA
0. 0.017;
                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 15726A-000610
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acid
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LENGTH: 192 amino acids
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TOPOLOGY: linear
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CITY: Palo Alto
STATE: California
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US-08-112-208C-9
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100.0%; Pred. No. 0.017;
tive 0; Mismatches 0; Indels
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SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/248,819A
FILING DATE: 25-NAY-1994
CLASSIFICATION: 435
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100.0%; Pred. No. 0.017;
Live 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: KORSMEYER, Stanley J. TITLE OF INVENTION: CELL DEATH REGULATORS TUMBER OF SEQUENCES: 60 CORRESPONDENCE ADDRESS:
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 15726A-000610
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15726A-000610
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APPLICATION NUMBER: US 08/112,208
FILING DATE: 26-AUG-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 9, Application US/08248819A Patent No. 5700638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 379 Lytton Avenue CITY: Palo Alto STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Smith, William M
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                   TELEPHONE: (415)326-2400
TELEFAX: (415)326-242
INFORMATION FOR SEO ID NO: 8
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: (415) 326-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
                                                                                                                                LENGTH: 192 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   192 amino acids
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Best Local Similarity الاست
الا والم
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Best Local Similarity 100.0
Charactive 9; Conservative
                                                                                                                                                                        single
                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; MOLECULE TYPE: protein US-08-248-819A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: sir
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                                                                                                                                                                                                                             US-08-248-819A-8
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                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 14
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100.0%; Pred. No. 0.017;
Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Townsend and Townsend Khourie and Crew STREET: 379 Lytton Avenue CITY: Palo Alto STATE: California COUNTRY: US
                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPPERTING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FILING DATE: 25-NAY-1994
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM: PC_DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: KORSMEVER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 60
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                            NAME: Smith, William M
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 15726A-000610
TELECOMUNICATION INFORMATION:
TELEPHONE: (415) 326-2402
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/248,819A FILING DATE: 25-NAY-1994 CLASSIFICATION: 435 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/112,208 FILING DATE: 26-NUG-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/112,208
FILING DATE: 26-AUG-1993
ATTORREY/ABET INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 8, Application US/08248819A
Patent No. 5700638
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
SOFTWARE: PATENTIN Release #
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amino acid
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OTHER INFORMATION:
OTHER INFORMATION:
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Best Local Similarity
Matches 9; Conserv
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US-08-248-819A-8
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RESULTIANS

US-08-607-269-25

US-08-607-269-25

US-08-607-269-25

SCHOROLOL STOLED CONTROLL CONTROL CONTROLL CO
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Search completed: January 7, 2003, 12:40:51 Job time : 11.2051 secs

11 GGPTSSEQI 19

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us-09-876-204-1\_1.rspt

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Ogniwa nephila cla
Ogata hadococcus
017874 caenorhabdi
Ogcové schizosacch
Ogota2 brachydanio
Ogfeu5 pinus pinas
Ogvix1 drosophila
                             061232 lymnaea sta
077268 drosophila
09w532 drosophila
09hw2 nephila mad
023984 drosophila
09ymd9 drosophila
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Q9fw70 oryza sativ
O61543 drosophila
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Q9urz4 schizosacch
Q9virl drosophila
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Q8z6f3 salmonella
Q8xdw5 escherichia
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O9p768 schizosacch
O9vm87 drosophila
        pseudomonas
                       nephila cla
lymnaea sta
sapien
                 drosophila
                                                                                                                                                                                                                                                                                                                                                                                                             Thornborrow E.C., Schwartzfarb E.M., Manfredi J.J.;

"A conserved intronic response element mediates direct p53-dependent transcriptional activation of both the human and murine bax genes.";
Submitted (JAN-201) to the EMBL/GenBank/DDBJ databases.

EMBL; AF339055; AAL7334-1;

NON_TER
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.
NCBL_TaxID=10090;
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Pred. No. 2.4e-06;
0; Mismatches 5; Indels
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U-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
BC12-associated X protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OBWXU1;
01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
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09W532
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Q9VMD9
Q9NHW4
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Q9P768
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ilarity 73.7%;
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MDGSGEQLGSGGPTSSEQI 19
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Q9ne37 leishmania
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O77509 bos taurus
Q9wxd4 erwinia aph
Q9bvv5 homo sapien
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163.997 Million cell updates/sec
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                                                      7, 2003, 12:27:38 ; Search time 23.8718 Seconds
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Q9nyg7
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       GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd
                                                                                                                                                              hits satisfying chosen parameters:
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                                       protein search, using sw model
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Q8WXU1
Q9UQD6
Q8SQ43
Q8SQ43
Q8TLC5
Q9NE37
Q05377
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sp_bacteria:*
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Sukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia: Eutheria; Carnivora; Fissipedia; Felidae; Felis.
NCBI_TaxID-9685;
                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                               SEQUENCE FROM N.A. MEDLINE-2023/095; pubMed-10772918; MEDLINE-2023/095; pubMed-10772918; Schmitt E., Paquet C., Beauchemin M., Dever-Bertrand J., Bertrand "Characterization of bax-sigma, a cell death-inducing isoform of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
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Yamazaki J., Oguma K., Kano R., Hasegawa A.;
"molecular cloning of feline bcl-2 family.";
Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
EMBL, AB080724; BAB85810.1;
SEQUENCE 192 AA; 21283 MW; 852D271AE86923FB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19718 MW; 5802B0AC73B2E4CE CRC64;
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Last annotation update)
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Last annotation update)
                                                                                                                                                                                                                                                         Commun. 270:868-879(2000).
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01-JUN-2002 (TrEMBLrel. 21, Last seq
01-JUN-2002 (TrEMBLrel. 21, Last ann
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| InterPro; IPR000712; Bc12_BH. |
| InterPro; IPR0007475; BCL2_family. |
| Fami Pr001675; Bc1_2; 1. |
| PR05TTE; PS50062; BCL2_FAMILY; 1. |
| PR05TTE; PS01080; BH1; 1. |
| PR05TTE; PS01080; BH1; 1. |
| SEQUENCE 179 AA: 19718 MW; 5802
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EMBL; AF247393; AAF71267.1;
HSSP; Q07817; 1MAZ.
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01-JUN-2002 (TrEMBLrel. 21,
01-JUN-2002 (TrEMBLrel. 21,
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Methanosarcina acetivorans.
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Matches 14; Conservative
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     sapiens (Human)
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                                                                            NCBI_TaxID=9606;
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08S043;
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Thornborrow E.C., Schwartzfarb E.M., Manfredi J.J.;
Thornborrow E.C., Schwartzfarb E.M., Manfredi J.J.;
A conserved intronic response element mediates direct p53-dependent transcriptional activation of both the human and murine bax genes.";
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF339054; AAL73333.1; -.
NON_TER 24 24 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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                                                                  Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
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Eukaryota, Metazoa, Chordata, Craniața, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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Pred. No. 5.9e-06;
Trefines 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                   24 AA; 2379 MW; 8C3D3E8B7479B798 CRC64;
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01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
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                             BCL2-associated X protein (Fragment)
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1 Similarity 73.7%;
14; Conservative
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Zimmer
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Allen N
                                                                         Pfam; PF00270; DEAD; 1.

Pfam; PF00271; helicase_C; 1.

SMART; SM00487; DEXDC; 1.

SMART; SM00490; HELICC; 1.
                                                                                                                                              "A physical map of the Leishmania major Genome Res. 8:135-145(1998).
EMBL; AL354513; CAB89599.1; -.
                                                     PROSITE; PS00039; DEAD_ATP_HELICASE; UNKNOWN_1.ATP-binding; Helicase.
                                                                                                                                                                                Ivens A.C., Lewis S.M.,
Smith D.F.;
                                                                                                                                                                                                   STRAIN=FRIEDLIN;
MEDLINE=98146435; PubMed=9477341;
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                                                                                                                                                                                                                                             Submitted (FEB-2001)
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AB011134; AAM07575.1; -.
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J. W., Calvo S., Engels R., Smirnov S., Atnoor D., Brown A.,
N. Naylor J., Stange-Thomann N., DaArallano K., Johnson R.,
McEwan P., McKernan K., Talamas J., Tirrell A., Ye W.,
C., Barber R.D., Cann I., Graham D.E., Grahame D.A., Guss A.M.,
D. R., Ingram-Smith C., Kuettner H.C., Krzycki J.A.,
JA., Li W., Liu J., Mukhopadhyay B., Reeve J.N., Smith K.,
J. T. Umayam L. A., White O., White R.H., de Macario E.C.,
J.G., Jarrell K.F., Jing H., Macario A.J.L., Paulsen I.,
W. Sowers K.R., Swanson R.V., Zinder S.H., Lander E.,
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  Similarity
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21929760; PubMed=11932238;
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B; Conservative
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315 AA;
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es. 12:532-542(2002).
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ATP-dependent R
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   Conservative
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                                          66776 MW;
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57.1%;
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61.5%;
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RNA helicase.
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0;
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            Score 41;
Pred. No.
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                                          01D457D7F4FEBCB5 CRC64;
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  Indels
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Yeast 11:1069-1075(1995).
EMBL; 248149; CAA88149.1; -.
SGD; S0005472; MSB4.
InterPro: TDRDANAGE.
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Q12317;
Q1-NOV-1996
Q1-NOV-1996
                               "Sequence analysis of a 44 kb DNA fragment of yea including the Tyl-H3 retrotransposon, the sufl(+) suppressor gene for +PNA - ^1.
                                                                                                                        SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=96076631; PubMed=7502582;
MEDLINE=96076631; PubMed=7502582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Saccharomyces cerevisiae (Baker's yeast).
Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycetina; Saccharomycetes;
Cancharomycetales; Saccharomycetaceae; Saccharomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chromosome XV reading MSB4 OR YOL112W.
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01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence up
01-JUN-2002 (TrEMBLrel. 21, Last annotation
Chromosome XV DNA (44 KB fragment)
MSB4 AND YOL112W.
suppressor gene for
delta element.";
                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. Durand P., Hilger
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Pfam; PF00566; TBC; 1.
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                                                                                                                                                                                                                                                                                 Submitted
                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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CE 487 AA;
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the sufl(+) frameshift
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                                                                                                                                                                                                      Q99L15 PRELIMINARY; PR
Q99L15; 17, Crea
01-JUN-2001 (TrEMBLrel. 17, Last
01-JUN-2001 (TrEMBLrel. 20, Last
01-MAR-2002 (TrEMBLrel; 20, Last
Similar to zinc finger protein 2
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Cr.
Mammalia; Eutheria; Rodentia; Sc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yeast 11:1069-1075(1995).
EMBL; Z74884; CAA99131.1; -.
EMBL; Z48849; CAA88148.1; -.
EMBL; Z48149; CAA88148.1; -.
SGD; S0005472; MS94.
InterPro; IPR000195; RabGAP_TBC.
Pfam; PF00566; TBC; 1.
SMART; SM00164; TBC; 1;
SMART; SM00164; TBC; 1;
SEQUENCE 492 AA; 57092 MW; C8
Strausberg R.;
Submitted (FEB-2001)
EMBL; BC003243; AAHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q05378;
Q05378;
Q1-NOV-1996 (TrEMBLrel. 01, Created)
Q1-NOV-1996 (TrEMBLrel. 01, Last sequence update)
Q1-NOV-1996 (TrEMBLrel. 21, Last annotation update)
Q1-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Chromosome XV DNA (44 KB fragment).
MSB4 AND YOL112W.
Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
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EMBL; Z48149; CAA8810.1; -..
SGD; S0005472; MSB4.
SGD; S0005472; MSB4.
InterPro; IPR000195; RabGAP_TBC.
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                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                             NCBI_TaxID=10090;
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Vandenbol M., Durand P., Portetelle D., Hilger F.;
Vandenbol M., Durand P., Portetelle D., Hilger F.;
"Sequence analysis of a 44 kb DNA fragment of yeast chromosome
including the Tyl-H3 retrotransposon, the suf1(+) frameshift
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Pred. No. 27;
3; Mismatches
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Sciurognathi;
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Best Loc
Matches
                                                         SEQUENCE FROM N.A. STRAIN-FRIEDLIN;
                                                                                                                                                                                                                                                                                                   Q9NNJ1;
01-OCT-2000 (TrEMBLrel.
01-OCT-2001 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9NNJ1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "The complete genome sequence of the lactic lactic ssp. lactis IL1403.";
Genome Res. 11:731-753(2001).
EMBL; AE006329; AAK05048.1; -.
MEROPS; M15.010; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN-IL1403;
MEDLINE-21235186; PubMed=11337471;
Bolottin A., Wincker P., Mauger S., Jaillon O.,
Meissenbach J., Ehrlich S.D., Sorokin A.;
Meissenbach J., Ehrlich S.D., Sorokin A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09CGLZ;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
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Q9CGZ2;
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Pfam; PF00096; zf-C2H2; 4.

SMART; SM00355; ZnF_C2H2; 4.

PROSITE; PS00028; ZINC_FINGER_C2H2_1;
PROSITE; PS00028; ZINC_FINGER_C2H2_2;
DNA-binding; Zinc_Finger,
DNA-bindi
                                                                                                                                                                                    Leishmania major.
Eukaryota; Eugler
                                                                                                                                                                                                                                                 Possible k06a9.1
LM15-1.82.
      Submitted
                               Murphy
                                                                                                                                                     NCBI_TaxID=5664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Carboxypeptidase; Complete proteome SEQUENCE 248 AA; 27478 MW; E644:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR003709; VanY. Pfam; PF02557; VanY; 1.
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Bacteria; Firmicutes; Bacillus/Clostridium group; Lactobacillales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DACB OR LL0950
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          134
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8; Conserv
., Quail M.,
i (AUG-2001)
                                                                                                                                                                                    Euglenozoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
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57.1%;
Harris
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18,
19,
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   D., Rajandream M.
EMBL/GenBank/DDBJ
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Pred. No. 19;
2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                         Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
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                                                                                                                                                                                       Trypanosomatidae;
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   databases.
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                                                                                                                                                                                       Leishmania
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RESULT 15
Q9WXD4
ID Q9WXI
ID Q9WXI
AC Q9WXI
DT 01-NC
DT 01-JU
DE EafA.
GN EAFA.
OS Erwin
OC Bacte
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Matches 7
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Best Local S
Matches 8
                                                                                                                                                                                                                                                                Pfam; PF00007; Cys_knot; 1.
SMART; SM00041; CT; 1.
SMART; SM00214; VWC; 1.
PROSITE; PS01185; CTCK_1; 1.
PROSITE; PS01225; CTCK_2; 1.
PROSITE; PS01208; VWFC; 1.
                                             Q9WXD4;
01-NOV-1999
01-NOV-1999
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    077509;
01-NOV-1998 (TrEMBLrel. 08, Created)
01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
                                  EafA.
  Bacteria;
          Erwinia aphidicola
                        EAFA.
                                                                                           Q9WXD4
                                                                                                                                                                                                                                                        PROSITE;
                                                                                                                                                                                                                                                                                                                                    "Sequence of a second gene encoding bovine submaxillary mucin: implication for mucin heterogeneity and cloning."; biochem. Biophys. Res. Commun. 251:550-556(1998). EMBL, AF019298; AAC72492.1; -...
InterPro; IPR000359; Cys_knot. InterPro; IPR001007; VWF_C.
                                                                                                                                                                                                                                                                                                                                                                                                         Jiang W., Woitach J.T., Gupta D.,
                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE=99011416; PubMed=9792811;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Cetartioda
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submaxillary mucin (Fragment).
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EMBL; AL160371; CAC00219 2; -
SEQUENCE 677 AA; 71562 MW; 4FE7D3D13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=FRIEDLIN:
MEDLINE=98146435; PubMed=9477341;
IVens A.C., Lewis S.M., Bagherzad.
Smith D.F.;
                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9913;
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SEQUENCE FROM
                                                                                                                                                   271
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14
                                                                                                                                                                                               Local Similarity 38.9
nes 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity es 8; Conserv
                                                                                                                                                                          2 DGSGXXXXXGGPTSSEQI 19
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 Proteobacteria;
                                            ) (TrEMBLrel.
) (TrEMBLrel.
| (TrEMBLrel.
                                                                                                                                                                                                                                             1323 AA;
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                                                                                          PRELIMINARY;
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                                                                                                                                                                                                                                            133693 MW;
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17,
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gamma
                                          Created)
Last sequence update)
Last annotation update)
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                                                                                                                                                                                                        Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi;
                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4FE7D3D13E56C310 CRC64;
subdivision; Enterobacteriaceae;
                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                           D2C71C14968B96A8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                         Bhavanandan V.P.;
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                                                                                          175
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                                                                                                                                                                                                                      DB 6;
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                                                                                                                                                                                                                    Length 1323;
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"Sugar induced 17 kDa surface protein of Erwinia aphidic homologous to major fimbrial subunit of uropathogenic enterobacteria.";
Submitted (OCT-1998) to the EMBL/GenBank/DDBJ databases. EMBL; AB019396; BAA76627.1;
InterPro; IPR000259; Fimbrial.
Pfam; PF00419; Fimbrial; 1.
SEQUENCE 175 AA; 17805 MW; 8AA03577A5E171DB CRC64;
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                                            DGSGKKIELGTPTTAQTL 134
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	through a collaboration d the EMBL outstation no restrictions on its content is in no way by and for commercial www.isb-sib.ch/announce/	1.3-q13.4 and; ipt, BAX delta."; HA AND THE THREE BY DOMAIN. DOMAIN.	Euteleostomi; Homo.		Q11067 caenorhabdi P35562 mus musculu P12021 sus scrofa Q9yus2 herpesvirus P3980 homo sapien P28905 escherichia P54092 chicken ane P54093 chicken ane P54093 chicken ane P21777 thermus the P21777 thermus the Q9rwn1 deinococus Q61670 mus musculu

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"Increased ratio of bcl-2/bax expression is associated leukemia virus-induced leukemogenesis in cattle.";

Virology 242:184-192(1998).

-I- FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINI ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ANTAGONIZING THE APOPTOSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             002703:
15-JUL-1999 (Rel. 38, Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAD ANI BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INTERACTION WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY (BY SIMILARITY).

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH2) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH BCL-2, E1B 19K PROTEIN, BCL-X(L), WCL-1 AND A1 (BY SIMILARITY).

SUBCELLULAR LOCATION: Membrane-bound (By similarity).

ALTERNATIVE PRODUCTS: A 21 KDA MEMBRANE PROTEIN ALDHA AND THE TWO CYTOPLASMIC PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       European
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING TO, AND ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG EIB 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C, ACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS. BAX DEFICIENCY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                PS01080; BH1;
PS01258; BH2;
PS01259; BH3;
PS50062; BCL2_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bovinae;
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                                                                                                                                                                                                                                                          Transmembrane; Alternative
                                                                                                              59
98
150
172
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                                                                           AA;
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                                                                                                                                                                                                                                                                                                                                                                        BH1; 1.
BH2; 1.
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165
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                                                                           21259 MW;
   100.0%;
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membrane isoform alpha
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                                                                                                                 POTENTIAL.
   Score 106;
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                                                                        6B4D5BABF1D5F87E CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                          Blood
                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT PLASMACYTOMA GLU-11, VARIANT T-CELL ACUTE LYMPHOBLASTIC LEUKENIA ARG-67, AND VARIANT BURKITT LYMPHOMA VAL-108.
MEDLINE=98200607; PubMed=9531611;
Meijerink J.P.P., Mensink E.J.B.M., Wang K., Sedlak T.W.,
Sloetjes A.W., de Witte T., Waksman G., Korsmeyer S.J.;
"Hematopoietic malignancies demonstrate loss-of-function mutations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chittenden T., Flemington C., Houghton A.B., Elangovan B., Chinnadurai G., Lutz R.J.;
"A conserved domain in Bak, distinct from BH1 death and protein binding functions.";
EMBO J. 14:5589-5596(1995).
                                           This
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                            between
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                                                                                                                                                                                                                                                                                                                                                                                                                         BAX."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MUTAGENESIS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               accelerates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oltvai Z.N., Milliman C.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-93364978;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-B-cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Apoptosis regulator BAX, membrane isoform alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-FEB-1995
01-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q07812;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Bcl-2 heterodimerizes in vivo with a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-FEB-1995 (Rel. 31,
15-JUN-2002 (Rel. 41,
                                                                      Burkiti lymphoma, and plasmacytoma. SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                               TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARRETY OF TISSUE DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, B BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INTERA WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

DISEASE: Defects in BAX are found in some cell lines from hematopoietic malignancies as T-cell acute lymphoblastic
                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: Membrane-bound.
ALTERNATIVE PRODUCTS: THE MEMBRANE ISOFORM ALPHA CYTOPLASMIC ISOFORMS, BETA, GAMMA AND DELTA ARE GALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                  SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1.
                                                                                                                                                                                                                                                                                                                                            Dd 91:2991-2997(1998).

FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING TO, AI ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG E1B 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C. ACTIVATION OF CASPASE-3. AND THEREBY APOPTOSIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation een the Swiss Institute of There are no restrictions on its
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1131; Pubmed=8521816;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PubMed=8358790;
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Last annotation updat
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                                                                                     (BH1)
(BH2)
(BH3)
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                                                                                       DOMAIN.
DOMAIN.
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                                                                                                                                                     leukemia,
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InterPro; IPR000712; Bc
Pfam; PF00452; Bc1-2; SMART; SM00337; BCL; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       007814;
01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                             MEDLINE=93364978; PubMed=8358790;
Oltvai Z.N., Milliman C.L., Korsmeyer
"Bcl-2 heterodimerizes in vivo with a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS50062; BCL2_FAMILY; PROSITE; PS01080; BH1; 1. PROSITE; PS01258; BH2; 1. PROSITE; PS01259; BH3; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified and this statement is not removed entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                      accelerates programmed cell death."; Cell 74:609-619(1993).
                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PIR; A47538; A47538.
HSSP; Q07817; 1MAZ.
                                                                                                                                                                                                                                                                                                TISSUE=B-cell
                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Apoptosis regulator BAX,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BAXB_HUMAN
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FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING TO, AND ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG E1B 19K PROTEIN.

SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH BCL-2 E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1.

SUBECELULAR LOCATION: CYCOPLASMIC.

ALTERNATIVE PRODUCTS: THE MEMBRANE ISOFORM ALPHA AND THE THREE CYTOPLASMIC ISOFORMS, BETA, GAMMA AND DELTA ARE GENERATED BY ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600040;
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98
150
2M 172
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118
165
192
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                                                                                                                                                                                                                                                                                                                                                                                              Chordata;
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Bcl2_BH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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G -> V (IN BURKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 106; DB 1,
Pred. No. 4.1e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HOMODIMERIZATION).
/FTId=VAR_013576.
                                                                                                                                                                                                                                                                                                                                                                           Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -> V (IN BURKITT LYMPHOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6C0CDB0A7DEE4994 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        n update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  218
                                                                                                                                                                                                                             S.J.;
conserved homolog,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΑA
                                                                                                                                                                                                                                                                                                                                                                           Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . Usage by and for commercial http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                             beta
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RESULT 5
BAXA, RAT
ID AXA
AC 0636
DT 01-N
DT 15-J
DE APOF
GN BAX.
OS Ratt
OS Ratt
OC Euka
OC Mamm
OX NCBJ
RN [1]
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InterPro; IPR000712; Bcl;
Pfam; PF00452; Bcl-2; 1.
SMART; SM00337; BCL; 1.
PROSITE; PS01080; BH1; 1.
PROSITE; PS01258; BH2; 1.
                                                                                                                                                                    SEQUENCE FROM N.A.

MEDITINE=96178771; PubMed=8600029;

Han J., Sabbatini P., Perez D., Rao L., Modha D., White E.;

"The E1B 19K protein blocks apoptosis by interacting with a inhibiting the p53-inducible and death-promoting Bax protein genes Dev. 10:461-477(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Mammalia; Eutheria; NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      063690; 062995; 064383;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last seguence update)
15-JUN-2002 (Rel. 41, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
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Madison D.L., Pfeiffer S.E.;
"Cloning of the 3' end of rat bax-alpha and corresponding
developmental down-regulation in differentiating primary,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; L22474; AAA03620.1;
PIR; B47538; B47538.
HSSP; Q07817; IMAZ.
                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chor
                                                                              MEDLINE=97147318; PubMed=8994223;
                                                                                                         TISSUE=Brain
                                                                                                                                    SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BAXA_RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                regulator BAX, membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            218 AA;
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98
150
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118
165
                                                                                                                                                                                                                                                                                                                                                                                          Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24220 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BCL2_family.
Bcl2_BH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rmatics Institute. There are no restinstitutions as long as its content
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 106; DB 1;
Pred. No. 4.6e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F69DCD70F960192F CRC64;
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                                                                                                                                                                                                             Bax protein.";
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        cultured
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Best Local
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TRANSMEM
CONFLICT
CONFLICT
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SEQUENCE
                                                                                                                                                                                                                                                      Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SW:
between
                                                                                                                                                                                                                                                                               MART; SM00337; BCL; 1.

GROSITE; PS01080; BH1; 1.

GROSITE; PS01258; BH2; 1.

GROSITE; PS01259; BH3; 1.

PROSITE; PS0062; BCL2_FAMILY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.; the immature rat "Expression of members of the bc1-2 gene family in the immature rat ovary: equine chorionic gonadotropin-mediated inhibition of granulosa cell apoptosis is associated with decreased bax and constitutive bc1-2 and bc1-xlong messenger ribonucleic acid levels."; Endocrinology 136:23-241(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the
                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR002475; InterPro; IPR000712; I
                                                                                                                                                                                                                                                                                                                                                                                              HSSP;
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SPLICING.

SPLICING.

ITSSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TIS

HIGHEST LEVELS IN THE TESTIS AND OVARY.

I DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAN

BAX FOR THEIR PRO-APOPTOTIC ACTULITY AND FOR THEIR INT

WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 HOMOLOGY 1 (BH1) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.

SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=95129487; PubMed=7828536;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-Sprague-Dawley;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 37-169 FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - Buropean Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG E1B 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C, ACTIVATION OF CASEASE-3, AND THETERBY APOPTOSIS.
SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH BCL-2, E1B 19K PROTEIN, BCL-X(L), WCL-1 AND A1.
SUBCELLULAR LOCATION: Membrane-bound A1.
ALTERNATIVE PRODUCTS: A 21 KDA MEMBRANE PROTEIN ALPHA AND THE TWO CYTOPLASMIC PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                          ; U49729; AAC26327.1;
; U59184; AAC52998.1;
; U392098; AAA75200.1;
; S76511; AAC60700.2;
; P53563; IAF3
             MDGSGEQLGGGGPTSSEQIM
                                      MDGSGEQPRGGGPTSSEQIM
                                                                   . Similarity
18; Conser
                                                                                                                                      ; Transmembrane;
59 73
18
150 165
172 192
172 792
72 79
76 76
126
149 149
159 159
                                                                                                                           59
98
150
172
72
76
126
149
159
                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     220:183-186(1996).
                                                                               84.0%;
90.0%;
                                                                                                                           21350
                                                                                                                                                                                                                                                                                                                                                               BCL2_family.
Bcl2_BH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Ovary;
                                      20
                                                                                                                                                                                                                                                                   Alternative
                                                                 Score 89; DB
Pred. No. 9.8e
0; Mismatches
                                                                                                                                     POTENTIAL.

S -> N (IN
L -> M (IN
C -> Y (IN
L -> F (IN
D -> E (IN
                                                                                                                            7B3CD198D56DF589
                                                             DB 1;
. 9.8e-06;
2;
                                                                                                                                                                                                                                                                 splicing.
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                                                                                            Length 192
                                                                                                                           CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INTERACTION
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                                                                 0;
                                                                Gaps
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BAXA_MOUSE
IID BAXAL
AC QOTABLA
AC ACACA
OS MASS MU
OC EUKARY
OC MAMMALI
OX NCBILT
RN (1)
RR SEQUEN
RC STRAIN
RA OLTVAI
RT "BCL-2
RT "BCL-2
RT "CC1-1- FU
CC -!- FU
CC -!- SU
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Query Match
Best Local Similarity
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InterPro; IPR000712; BC
Pfam; PF00452; BC1-2;
SMART; SM00337; BCL; 1
                                                                                             TRANSMEM
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entities
or send a
                                                                                                                                                                                                                          Apoptosis;
                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                      SMART: SM00337; BCL; 1.
PROSITE; PS01080; BH1; 1.
PROSITE; PS01258; BH2; 1.
PROSITE; PS01259; BH3; 1.
PROSITE; PS01062; BCL2_FAMILY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=C57BL/6 X DBA/2; MEDLINE=93364978; PubMed=8358790;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MGD; MGI:99702;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Apoptosis regulator BAX,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   007813;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SPLICING.

SPLICING.

SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUES.

TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUES.

DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAC

BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INTERACT

WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH2) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.

SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION: Membrane-bound.
ALTERNATIVE PRODUCTS: A 21 kDa MEMBRANE
PROPUTATION BETA AND GAMMA ARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CESSATION OF SPERM PRODUCTION.
SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS
ELB 19K PROTEIN, BCL-X(L), MCL-1 AND A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION: ACCELERATES PROGRAMMED CELI
ANTAGONIZING THE APOPTOSIS REPRESSOR
HOMOLOG E1B 19K PROTEIN. INDUCES THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG E1B 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME CACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS. BAX DEFICIENCY LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE LABOR TO LYMPHOID HYPERPLASIA AND MALE STERILITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      L22472; AAA03622.1;
P53563; 1AF3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    s requires a license agreement (See http://www.isb-sib.ch/announce/
an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                           Transmembrane;
                                                                                                 192
                                                                                                 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Вах.
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                                                                                          73 E
118 E
165 E
192 F
21394 MW;
78.3%;
85.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BCL2_family.
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                                                                                                                                                                                                                                                              Alternative
Score 83;
Pred. No.
                                                                                                                                                             вн3.
вн1.
вн2.
                                                                                             POTENTIAL.
D2E0B3566579FAFF CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Usage
                              Length 192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOGETHER WITH BCL-2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВҮ
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RESULT 8

ROTD_RATIME
ID MOTD_R
AC Q52964
AC Q52964
DT 30-MAY
DT 30-MAY
DT 30-MAY
DT 30-MAY
DT BACTER
OC Rhizob
OC Rhizob
OC Rhizob
OX NCBI_T
RN [1]
RP SEQUEN
RC STRAIN
                                                                                                                                                                                                                                             Qy
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                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                            30-MAY-2000
30-MAY-2000
30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q07815;
01-FEB-1995
01-FEB-1995
16-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HUMAN
                                                Rhizobium meliloti (Sinorhizobium Bacteria; Proteobacteria; alpha sı Rhizobiaceae; Sinorhizobium.
                                                                                                                                                 MOTD_RHIME
Q52964;
                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BAX protein,
BAX.
                                                                                                 Chemotaxis motD protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oltvai Z.N., Milliman C.L., Korsmeyer "Bcl-2 heterodimerizes in vivo with a
                                                                                                                                                                                                                                                                                                                                                                                                                   modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       accelerates programmed cell death."; Cell 74:609-619(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BAXC_HUMAN
 SEQUENCE FROM N.A STRAIN-RUll/001;
                                     NCBI_TaxID=382;
                                                                                                                                                                                                                                                                                                                                 Apoptosis;
                                                                                                                                                                                                                                                                                                                                               MIM; 600040;
                                                                                                                                                                                                                                                                                                                                                            Genew;
                                                                                                                                                                                                                                                                                                                                                                        EMBL; L22475;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=93364978; PubMed=8358790;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human)
                                                                                                                                                                                                                       1 MDGSGEQPRGGVSSRIEQ 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: Cytoplasmic. ALTERNATIVE PRODUCTS: THE MEMBRANE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CYTOPLASMIC ISOFORMS, BETA, ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                              MDGSGEQPRGGGPTSSEQ 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MDGSGEQLGSGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                           HGNC: 959;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17;
                                                                                                                                                                                                                                                                                                                                                                                             s requires a license agreement (See http://www.isb-sib.ch/announce/an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                       Alternative splicing.
41 AA; 4678 MW; D94639AABB927859 CRC64;
                                                                                             (Rel. 39, Created)
(Rel. 39, Last sequence update)
(Rel. 39, Last annotation update)
motD protein (Motility protein D).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Rel.
(Rel.
(Rel.
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                                                                                                                                                                                                                                                                                                                                                                      AAA03621.1;
                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                           BAX

    Last sequence update)
    Last annotation update

                                                                                                                                                                                                                                                                                   61.3%;
72.2%;
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                                                                                                                                                                                                                                                                       Pred. No. 0.0
1; Mismatches
                                                                                                                                                                                                                                                                                              Score 65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata;
Catarrhini; Hominidae
                                                                                                                                                             PRT;
                                                             subdivision;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAMMA AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                        meliloti).
                                                                                                                                                           475 AA
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                                                                                                                                                                                                                                                                                   0046;
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                                                          Rhizobiaceae group;
                                                                                                                                                                                                                                                                                                                                                                                                                      Usage
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••
                                                                                                                                                                                                                                                                                            Length 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALPHA AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                homolog,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THE THREE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           a collaboration - MBL outstation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВΥ
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RESULT 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 9
           PRINTS; PRO0478; PHRIBLKINASE.
PROSITE; PS00567; PHOSPHORIBULOKINASE;
Transferase; Kinase; Chloroplast; Trans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-AUG-1992 (Rel. 23, Created)
01-AUG-1992 (Rel. 23, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Phosphoribulokinase, chloroplast precursor (EC 2
(Phosphopentokinase) (PRKASE) (PRK).
Mesembryanthemum crystallinum (Common ice plant)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Three genes of a motility operon and their role in flagellar rotary speed variation in Rhizobium meliloti.";
J. Bacteriol. 179:6391-6399(1997).
-:- FUNCTION: REQUIRED FOR THE ROTATION OF THE FLAGELLAR MOTOR.
-:- HAS A POSITIVE EFFECT AS FLAGELLAR ROTATION INCREASES WHEN AN EXCESS OF MOTD IS PRESENT.
-:- SUBCELLULAR LOCATION: CYTOPLASMIC. ASSOCIATED WITH THE INNER
                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Extended Bioinformatics Institute. There are no restructe by non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                 Michalowski C.B., Derocher E.J., Bohnert H.J., Salvucci Submitted (XXX-1991) to the EMBL/GenBank/DBBJ databases -:- CATALYTIC ACTIVITY: ATP + D-ribulose 5-phosphate = ribulose 1,5-bisphosphate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Caryophyllidae; Caryophyllales; Aizoaceae; Mesembryanthemum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This
                                                                InterPro; IPR001324; PRK. Pfam; PF00485; PRK; 1.
                                                                                                     EMBL; M73707; AAA33034.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=3544;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KPPR_MESCR
P27774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chemotaxis; Flagella; Flagellar rotation.
DOMAIN 413 416 POLY-GLY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; L49337; AAB81410.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Platzer J., Sterr W., Hausmann M.,
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SIMILARITY: BELONGS TO THE PHOSPHORIBULOKINASE FAMILY.
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European Bioinformatics Institute.
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9; Conserv
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Best Local
               P04491;
13-AUG-1987
13-AUG-1987
01-JUN-1994
E1B protein,
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01-DEC-1992 (Rel. 24, Created)
01-DEC-1992 (Rel. 24, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                           _ADE12
E1BL_ADE12
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ACT_SITE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR000209; Peptidase_S8 Pfam; PF00082; Peptidase_S8; 1. PRINTS; PR00723; SUBTILISIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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protein,
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9; P00782; 1801.
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13; Conserv
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321 AA; 33747 MW
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large T-antigen.
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CHARGE RELAY
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Pred. No. 15;
3; Mismatches
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PHOSPHORIBULOKINASE.
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188DC418E211EC975 CRC64;
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ID HS70_H
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01-FEB-1994 (Rel. 2
01-FEB-1995 (Rel. 3
Heat shock 70 kDa p
                                                                                                                                                                Q05944;
01-FEB-1994
01-FEB-1994
01-FEB-1995
SEQUENCE FROM N.A.

MEDLINE=93130891; PubMed=1483453;

Gellner K., Praetzel G., Bosch T.C.G.;

Gellner gand expression of a heat-inducible hsp70

"Cloning and expression of a heat-inducible hsp70

of Hydra which differ in their stress response.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'EMBL;
                                                                                            Hydra magnipapillata (Hydra).
Eukaryota; Metazoa; Cnidaria; Hydrozoa; Hydroida;
Hydridae; Hydra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sprengel J., Schmitz B., Heuss-Neitzel D., Zock C., Do "Nucleotide sequence of human adenovirus type 12 DNA: functional analysis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "The 2.2 kb E1b mRNA of human Ad12 antigens starting at different AUG Cell 27:121-131(1981).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shimojo H., Sugisaki H., Takanami M., Uemizu Y., Fujinaga "Nucleotide sequence of the transforming early region Ell adenovirus type 12 DNA: structure and gene organization, comparison with those of adenovirus type 5 DNA.";
                                                                                                                                       HSP70.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=82115327; PubMed=7326748; Bos J.L., Polder L.J., Bernards R., van der Eb A.J., van Ormondt H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=82105565;
Kimura T., Sawada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=28282;
[1]
                                                                                 NCBI_TaxID=6085;
                                                                                                                                                                                                                     HS70_HYDMA
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Pfam; PF01696; Adeno_E1B_55K; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PIR; A03812; ERAD24.
PIR; S33930; S33930.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE=94076430;
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X73487; CAA51879.1;
                                                                                                                                                                                                                                                                                                                                                                                                           protein
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8; Conserv
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                                                                                                                                                                                                                     STANDARD;
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Y., Shinawawa M.
                                                                                                                                                  protein
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itz B., Heuss-Neitzel D.,
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                                                                                                                                                                                                                                                                                                                                                      Score 46; DB Pred. No. 27;
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triplets.";
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PRODOM; PD000089; HSp70; 1.
PROSITE; PS00297; HSP70_1; 1.
PROSITE; PS00329; HSP70_2; 1.
PROSITE; PS003329; HSP70_3; 1.
ATP-binding; Heat shock.
SEQUENCE 654 AA; 71467 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        burgdorferi.";
Nature 390:580-586(1997).
-i- FUNCTION: PRODUCES ATP FROM ADP IN
GRADIENT ACROSS THE MEMBRANE. THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fraser C.M., Casjens S., Huang W.M., Sutton G.G., Clayton R.A., Lathigra R., White O., Ketchum K.A., Dodson R., Hickey E.K., Gwir Dougherty B., Tomb J.-F., Fleischmann R.D., Richardson D. Peterson J., Kerlavage A.R., Quackenbush J., Salzberg S., Hanson van Vugt R., Palmer N., Adams M.D., Gocayne J.D., Weidman J., Utterback T., Watthey L., McDonald L., Artiach P., Bowman C., Garland S., Fujii C., Cotton M.D., Horst K., Roberts K., Hatch B. Smith H.O., Venter J.C.;
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16-OCT-2001
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                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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-!- SIMILARITY: BELONGS TO THE HEAT SHOCK PROTEIN 70 FAMILY.
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2 (Rel. 41, Last annotation update)
synthase beta chain (EC 3.6.3.14)
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Spirochaetaceae; Borrelia
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P49770; O43201;
01-OCT-1996 (Rel. 34, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Translation initiation factor eIF-2B beta subunit (eIF-2B exchange factor) (S20115) (S201115).
                                                                                          VARIANTS VWM GLY-213; ARG-273; ASP-316 AND VAL-329.
MEDLLHRE-21583742; PubMed-11704758;
Leegwater P.A.J., Vermeulen G., Koenst A.A.M., Naidu S., Morenser A., Kersbergen P., Mobach D., Fonds D., van Berkel Lemmers R.J.L.F., Frants R.R., Oudejans C.B.M., Schutgens Pronk J.C., van der Knaap M.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                           "Cloning of a gene bearing missense mutations Alzheimer's disease."; Nature 375:754-760(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sherrington R., Rogaev E.I., Liang Y., Rogaeva E.A., Levesque Ikeda M., Chi H., Lin C., Li G., Holman K., Tsuda T., Mar L., Foncin J.-F., Bruni A.C., Montesi M.P., Sorbi S., Rainero I., Pinessi L., Nee L., Chumakov I., Pollen D., Brookes A., Pinesau P., Pollnsky R.J., Wasco W., da Silva H.A.R., Haines Jericak-Vance M.A., Tanzi R.E., Roses A.D., Fraser P.E., Rommens J.M., St George-Hyslop P.H.;
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Pfam; PF02874; ATP-synt_ab,N; 1.
PROSITE; PS00152; ATPASE_ALPHA_BETA; FALSE_NEG.
Hydrolase; ATP synthesis; Hydrogen ion transpor
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                                                                                                                                                                                                                                                                                                                                                                                                          Nature
[3]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yu W., Sarginson J., Submitted (NOV-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR004100;
InterPro; IPR000194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=95319502; PubMed=7596406;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Brain
                        leukoencephalopathy with vanishing white Nat. Genet. 29:383-388(2001).
                                                                           "Subunits of the translation initiation factor eIF2B
                                                                                                                                                                                                                                                                                                                                   Loretz
                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. Rowen L., Madan A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIGR; BB0093;
                                                                                                                                                                                                                                                                                   'Sequencing
                                                                                                                                                                                                                                                                                                             Hood L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88 DGSG-NPRDGGPSLDDNLI 105
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         FUNCTION:
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                                                                                                                                                                                                                                                                                                                            c.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
9; Conserv
                                                                                                                                                                                                                                                               g of human
(MAY-1999)
                                                                                                                                                                                                                                                                                                                                 Lasky
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATP synthesis;
434 AA; 48026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                   s.
                                                                                                                                                                                                                                                                                                                                                         Qin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chordata;
                                                                                                                                                                                                                                                             chromosome
to the EMBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42.98;
47.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gibbs R.A.;
to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATPase_a/bcentre
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MW; 5FF0293DBD91361B C
                                                                                                                                                                                                                                                                                                                                   Α.,
    EXCHANGE OF
                                                                                                                                                                                                                                                               EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                         Abbasi N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 45.5;
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Catarrhini;
                                                                                                                                                                                                                                                                                                                                 Prescott
                                                                                                                                                                                                                                                                                       14.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28;
       EUKARYOTIC INITIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vertebrata;
                                                   matter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1;
                                                                                                                                                                                                                                                                                                                                   M., Dickhoff R., James
Ratcliffe A., Shaffer
                                                                                                                                                                                                                                                             databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in early-onset
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Complete
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                                                                           are
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                                                                                                                                                                                                                                                                                                                                 A.,
                                                                                                                       , Mulders J.
el C.G.M.,
ns R.B.H.,
                                                                           mutant in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            familial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G.,
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                           MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This
 Eukaryota;
                                                                                   Q9Z2D6;
                                                                                                                                                                                                                                                                                                                                                                                    VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                          VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; L40395; AAC42002.1; ALT_FRAME. EMBL; AC006530; AAD30183.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the
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                            MECP2
                                      Methyl-CpG-binding
                                                 16-OCT-2001
15-JUN-2002
                                                                                                 MEC2_MOUSE
                                                                                                                                                                                                                                                                                                                                                              VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                   VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                              Initiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF01008; IF-2B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        between
                                                                         16-OCT-2001
                                                                                                                                                           24
                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    variable period of a few years to a few decades, usually following an episode of fever and coma.

SIMILARITY: BELONGS TO THE EIF-2B ALPHA/BETA/DELTA SUBUNITS FAMILY.

CAUTION: REF.2 SEQUENCE DIFFERS FROM THAT SHOWN DUE TO
              musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in children. The neurological signs of VMM include progressive cerebellar ataxia, spasticity, inconstant optic atrophy and relatively preserved mental abilities. The disease is chronic progressive with, in most individuals, additional episodes of rapid deterioration following febrile infections or minor head trauma. Head trauma leads only to motor deterioration, whereas infections with fever may end in coma. Death occurs after a infections with fever may end in coma. Death occurs after a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               European Bioinformatics Institute. There are no resuby non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vanishing white matter (VWM), a brain disease that occurs main in children. The neurological signs of VWM include progressive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DELTA AND EPSILON.
DISEASE: Defects in EIF2B2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2-BOUND GDP FOR GTP.
SUBUNIT: COMPLEX OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FRAMESHIFTS
                                                                                                                                                           RGGGPRSSEEM
                                                                                                                                                                                RGGGPTSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                603896;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SWISS-PROT entry is copyright. It is produced through a collaboration en the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AF035280; AAB88176.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGNC: 3258;
                                                                                                                                                                                                       Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPR000649; IF-2B
 Metazoa;
                                                 (Rel. 40,
(Rel. 40,
(Rel. 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                            ractor;
                                                                                                                                                                                                                                                      351 AA;
                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                 23
30
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35
52
110
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                                                                                                                                                                                                                                                                                                                                                                                                           273
             (Mouse)
                                                                                                 STANDARD;
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                                   41, Last
protein
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                                                                                                                                                                                                                                                                                                                                                                                    316
                                                                                                                                                                                                                                                                                                                                                                                                          273
                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein
Chordata;
                                                                                                                                                                                                                  42.5%;
72.7%;
                                                                        Created)
                                                        Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FIVE DIFFERENT SUBUNITS; ALPHA,
                                                                                                                                                                                                                                                      MW.
                                    annotation
2 (MeCP-2 p
                                                                                                                                                                                                                                                                                                                                                                                                                                           biosynthesis;
                                                                                                                                                                                                       2;
                                                                                                                                                                                                                  Score 45;
Pred. No.
                                                                                                                                                                                                                                                               /FTId=VAR_012290.
G -> V (IN VWM).
/FTId=VAR_012322.
                                                                                                                                                                                                                                                                                                                                                                                   /FTId=VAR_012321.
V -> D (IN VWM).
                                                                                                                                                                                                                                                                                                                                                                                                                      /FTId=VAR_012289.
   Craniata; Vertebrata; Euteleostomi;
                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           are a cause of leukoencephalopathy with
                                                                                                                                                                                                                                                    -> D (IN REF. 2).
C29FE477143F545A CRC64;
                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                            > K (IN REF. 2).
> T (IN REF. 2).
> R (IN REF. 2).
> V (IN REF. 2).
> V (IN REF. 2).
> R (IN REF. 2).
> R (IN REF. 2).
> B (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                          (IN VWM)
                                    n update)
protein)
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                                                                                                484
                                                                                                                                                                                                                 DB
27;
                                                                                                A
                                                                                                                                                                                                                                                                                                                                                                                                                                            Disease mutation.
                                      (MeCP2).
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                                                                                                                                                                                                                             Length 351
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                                                                                                                                                                                                                                                                            2)
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Best Local
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DOMAIN
                                                                                                                                                                                            MGU; MGI:99918; Mecp2.
InterPro; IPR000637; AT_hook.
InterPro; IPR001739; Methyl-CpG_bind
Pfam; PF01429; MBD; 1.
                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                      entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                           modified and this statement
                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and mouse reveals new untranslated sequences."; Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Comparative analysis of the methyl CpG binding and mouse reveals new untranslated sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.

Delchwald K., Thiessen J., Wiehe T., Kioschis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CpG-binding protein 2 gene
expression.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIINE-9929240; PubMed-10369871;
COy J.F., Sedlacek Z., Baechner D., Delius H., Poustka A.;
"A complex pattern of evolutionary conservation and alternative
polyadenylation within the long 3' untranslated region of the methyl-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE-99299240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mol. Cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CpG binding proteins."
                                                                                                                                        DOMAIN
                                                                                                                                                     DOMAIN
                                                                                                                                                                          SMART;
                                                                                                                                                                                      PRINTS;
                                                                                                                                                                                                                                                           EMBL;
                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                  EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hum. Mol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Identification and characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=98449942; PubMed=9774669;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                       NIAMOC
                                                                                                                                                               Franscription
                                                                                                                                                                                                                                                                                                                                                  the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hendrich B., Bird
232
          3 GSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: CHROMOSOMAL PROTEIN THAT BINDS TO METHYLATED DNA. BIND SPECIFICALLY TO A SINCLE METHYL-CPG PAIR. IT IS NOT INFLUENCED BY SEQUENCES FLANKING THE METHYL-CPGS. MEDIATES TRANSCRIPTIONAL REPRESSION THROUGH INTERACTION WITH HISTONE DEACETYLASE AND THE COREPRESSOR SINJA (BY SIMILARITY). SUBCELLULAR LOCATION: NUCLEAR. COLOCALIZED WITH METHYL-CPG:
                                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: GENOME.
                                                                                                                                                                                                                                                           AJ132922;
AF121351;
                                                                                                                                                                                                                                                                                AF072251;
                                                                                                                                                                                                                                                AF158181;
                                                                                                          ; PR00929; ATH
SM00391; MBD;
                                              10;
                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genet.
                                                                                           484 AA;
-GGGATTSAQVM
                                             Conservative
                                                                                                                                                                                                                                            CAB46495.1;
AAF22116.1;
AAF33024.1;
                                                                                                                                                                                                                                                                                                                                                                                                 CONTAINS 1 A.T HOOK DNA-BINDING REPEAT. CONTAINS 1 METHYL-BINDING DOMAIN (MBD).
                                                                                                                                                                                                                                                                                AAC68880.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8:1253-1262(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18:6538-6547(1998).
                                                                                           443
52307
                                                                                                                                                                                                                                                                                                                                         institutions as long
                                                        42.0%;
                     20
                                                                                           MW;
                                                                                                                                                   Repressor;
MBD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MeCP2) suggests
                                                                                                                                                                                                                                                                                                                              is not removed.
                                                                                                      POLY-ALA.
POLY-HIS.
POLY-PRO.
POLY-THR.
                                                         Pred. No. 43;
                                                                   Score 44.5;
                                                                                           62FD228F0118A49F
                                              Mismatches
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106
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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a in Ja li 2	ision 09-Jun-2000 #text_clemin, M.; Dever-Bertrand, 0, 868-879, 2000 delta, a cell death-induc.  myelocytic cells of the Bcl-2 family, has	d 4 t 6 0 4 t 6	ALIGNMENTS	T13980 T13980 F84383 C90899 C90899 A24026 A24026 T34789 T34789 T557963 T557963 T557963
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bcl-2-associated protein x, alpha splice form - human N; Alternate names: BAX; programmed cell death membrane C; Species: Homo sapiens (man) C; Date: 03-May-1994 #sequence_revision 03-May-1994 #tex
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A:Title: Bcl-2 heterodimerizes in vivo with a conserved A:Reference number: A47538; MUID:93364978; PMID:8338790
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A;Gene: GDB:C28082; OMIM:buuvv
A;Gene: GDB:C28082; OMIM:buuvv
A;Map position: 19q13.3-19q13.4
C;Superfamily: bcl transforming protein
C:Keywords: alternative splicing; blocked amino
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Cell 74, 609-619, 1993
A;Title: Bcl-2 heterodimerizes
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N;Alternate names: BAX; programmed cell death membra
C;Species: Homo sapiens (man)
C;Date: 03-May-1994 #sequence_revision 03-May-1994
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A; Gene: GDB:BAX
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R;Oltvai, Z.N.; Milliman, C.L.; Korsmeyer, S.J.
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bcl-2-associated
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A; Residues: 1-218 <OL
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A; Residues: 1-192 <OLT>
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A;Title: Acetyl xylan esterase from Trichoderma reesei contains A;Reference number: S71334; MUID:96235218; PMID:8647098 A;Accession: S71334 A;Accession: S71334 A;Status: preliminary
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A; Cross-references: GDB:228082;
A; Map position: 19q13.3-19q13.4
C; Keywords: alternative splicing
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C;Superfamily: bcl transforming
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Cell 74, 609-619, 1993
A;Title: Bcl-2 heterodimerizes in vivo with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bcl-2-associated protein x - mouse N;Alternate names: BAX; programmed cell death membrane protein C;Species: Mus musculus (house mouse) C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change C;Accession: D47538
                                                    acetyl xylan esterase precursor - fungus (Trichode)
C;Species: Trichoderma reesei
C;Date: 23-Jul-1997 #sequence_revision 01-Aug-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N;Alternate names: BAX; programmed cell death membr
C;Species: Homo sapiens (man)
C;Date: 03-May-1994 #sequence_revision 03-May-1994
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Eur. J. Biochem.
                 C;Accession: S71334
R;Margolles-Clark, E.; Tenkanen, M.;
                                                                                                             S71334
                                                                                                                                                                                                                                                                                                                                                                                                 A; Gene: GDB: BAX
                                                                                                                                                                                                                                                                                                                                                                                                                     C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: GB:L22475; NID:g388169; A;Note: the amino end of the mature protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Title: Bcl-2 heterodimerizes in vivo with a conserved A; Reference number: A47538; MUID:93364978; PMID:8358790
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A; Residues: 1-192 <OLT>
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A; Residues: 1-41 <OLT>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Oltvai, Z.N.; Milliman, C.L.;
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17; Conser
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13; Conser
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237, 553-560, 1996
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85.0%;
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72.2%;
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Pred. No. 0.0074;
1; Mismatches
                                                                                          fungus (Trichoderma
                                                                                                                                                                                                                                                                                                                                        blocked amino end; cytosol;
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Pred. No. 9.1e-05
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                 Soederlund,
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PMID:8358790
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                   H.; Penttilae,
                                                      #text_change
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an active-site serine

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R;Rieger, M.; Mueller-Auer, S.; Zipp
submitted to the Protein Sequence Da
A;Reference number: 224478
A;Accession: T47849
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-743 <RIE>
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A; Cross references: EMBL
A; Experimental source: C; Genetics:
A; Map position: 3
A; Note: T8B10.40
                                                                                                                                                A;Cross-references: C;Genetics:
A;Gene: AGR_L_1495
A;Map position: linea
                                                                                                                                                                                                              hypothetical protein AGR_L_1495 [imported] - Agrobacterium tumefaciens (strain C:Species: Agrobacterium tumefaciens C:Species: Agrobacterium tumefaciens C:Date: 22-Oct-2001 *sequence_revision 22-Oct-2001 *text_change 11-Jan-2002 C:Accession: D98225 R:Goodner, B: Hinkle, G: Gattung, S: Miller, N.: Blanchard, M.: Qurollo, B.: A.; Liu, F: Wollam, C:: Allinger, M.: Doughty, D.: Scott, C:: Lappas, C:: Mar Science 294, 2323-2328, 2001 A:Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobact A: Reference number: A97359; PMID:11743194 A: Accession: D98225 A: Status; preliminary A: Molecule type: DNA A: Residues: 1-513 < CUR>
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A;Cross-references: EMBL:Z69256; NID:g1431619; PID:e220701
C;Cenetics:
C;Genetics:
A;Gene: axel
C;Superfamily: fungal cellulose-binding domain homology
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-302/Product: acetyl xylan esterase #status predicted
F;271-302/Domain: fungal cellulose-binding domain homology
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Local Similarity 100.0%;
nes 9; Conservative
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       GSETPPRGGGPFSEDE
                                      GSGEQPRGGGPTSSEQ 18
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                                                                         Similarity
9; Conserv
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9; Conservative
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                                                                           Conservative
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ce: cultivar Columbia;
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56.2%;
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e Database,
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Pred. No
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Pred. No. 2.2;
3; Mismatches
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Pred.
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20;
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Markelz, B.
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R;Kawarabayasi, Y.; Hii
awa, H.; Takamiya, M.;
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hypothetical protein APE0758 - C;Species: Aeropyrum pernix C;Date: 20-Aug-1999 #sequence_r C;Accession: G72666
                                                              RESULT
G72666
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Drosophila melanogaster
C;Date: 20-Sep-1999 #sequence_revision
C;Accession: T13850
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                                                                                                                                                      20
                                                                                                                                                                                                                                                 A;Description: acts as a C;Keywords: zinc finger
                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-1191 <H/
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C; Species: Drosophila melanogaster
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Science 294, 2317-2323, 2001
A;Authors: Yoo, H.; Tao, Y.; Biddle,
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                                                                                                                                                                                                                                                                                C; Function
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A; Residues: 1-513 <KUR>
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9; Conser
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ll; Conservative
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                                                                                                                                                                                                                                                                transregulator of
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50.0%;
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56.2%;
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                                            Aeropyrum pernix (strain
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Kutyavin, S
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T.; Levy, R.;
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; Hino, Y.; л М.; Masuda,

Horikawa, H.; Yamazaki, S.; , S.; Funahashi, T.; Tanaka,

Haikawa, Y.; Jin-no, K.; T.; Kudoh, Y.; Yamazaki,

Tа J.

#sequence\_revision

20-Aug-1999

#text\_change 09-Jun-2000

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R.Michalowski, C.B.; DeRochér, E.J.; Bohnert, H.J.; Salvucci, M.E. submitted to the EMBL Data Library, July 1991
A;Description: Phosphoribulokinase from ice plant: transcription, A;Reference number: 217516
A;Accession: T12436
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
T12436
                                                                                                                                                        A;Cross-references: EMBL:M73707; NID:g167265; PID:g167266 C;Superfamily: phosphoribulokinase C;Keywords: ATP; Calvin cycle; phosphotransferase
                                                                                                                                                                                                                                                                                                                                                                           phosphoribulokinase (EC 2.7.1.19) - common ice plant
C;Species: Mesembryanthemum crystallinum (common ice plant)
C;Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 20-Sep-1999
C;Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 20-Sep-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical protein DKFZp586M1019.1 - human C;Species: Homo sapiens (man) C;Decies: Homo sapiens (man) C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 13-Aug-1999 C;Accession: T08760
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T08760
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A; Title: Complete genome seq
A; Reference number: A72450;
A; Accession: G7266
A; Status: preliminary
A; Status: preliminary
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C;Superfamily: Aeropyrum pernix hypothetical protein APE0758
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A; Residues: 1-531 <WAM>
A; Cross-references: EMBL: AL050284
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A; Accession: T08760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Wambutt, R.; Heubner, D.; Mewes, H.W.; Gassenhuber, J.; Wiemann, submitted to the Protein Sequence Database, March 1999
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A;Experimental source: strain K1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-137 <KAW>
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il Similarity 83.3%;
10; Conservation
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52.9%;
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50; MUID:99310339; PMID:10382966
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Pred. No. 33;
1; Mismatches
                                                                                 2; Mismatches

 Mismatches

                                                                                                   Score 47;
Pred. No.
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alkaline proteinase (EC 3.4.21.-), intracellular - Bacillus sp. (strain 221 C;Species: Hacillus sp. (c;Species: Hacillus sp. (c;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 16-Jun-2000 C;Accession: S27501 C;Accession: S27501 R;Kato, C.; Nakano, Y.; Yamamoto, M.; Horikoshi, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
S27501
                                                                                                                                                                                                   A;Cross-references: EMBL:D10730; NID:g216233; PIDN:BAA01573.1; PID:gC;Superfamily: Bacillus intracellular serine proteinase; subtilisin C;Keywords: hydrolase; serine proteinase F;40-264/Domain: subtilisin homology <88T>
                                                                                                                                                                                                                                                                                                                                                                R;Kato, C.; Nakano, Y.; Yamamoto, M.; Horikoshi, K. submitted to the EMBL Data Library, March 1992
A;Description: Cloning and nucleotide sequence of the intracellular alkaline protease A;Reference number: $27501
밁
                                         QΥ
                                                                                                                                                                                F;49,86,250/Active site: Asp, His,
                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-321 <KAT>
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                                                                                         Matches
                                                                                                              Best Local Similarity
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121 DGSGEMGWIAKAIRYAVDWRGPKGEQMRIITMSLGGPTDSEEL
                                           2 DGSGEQ--
                                                                                      Conservative
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30.2%;
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US-08-471-058-13
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US-08-912-08-93-326-9
US-08-912-208C-3
US-08-912-208C-3
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Patent No. 5691179
GENERAL TENDO
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US-08-112-208C-2
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US-09-166-028-3
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US-09-166-028-3
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SOFTWARE: Fa:
SEQ ID NO 3
FENGTH: 20
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APPLICANT: GOTDON C. Shore et al.
APPLICANT: GOTDON: BAX-MEDIATED APOPTOS:
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/09166028 Patent No. 6245885
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Best Local :
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CURRENT FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPOSITION
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                     NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                    APPLICANT: KORSMEYI TITLE OF INVENTION:
                                                                                                                                       STREET: 379 Lytton Avenue CITY: Palo Alto STATE: California
                                                                                                                             COUNTRY:
                                                                                                             ZIP: 94301
   APPLICATION NUMBER:
                                                                                                                                                                                        ADDRESSEE:
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US-09-1127-048-6

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US-08-978-523-321-1

US-08-112-208C-7

US-08-248-819A-7

US-08-337-646A-7

US-08-856-531-7

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Pred. No. 1.7e-09;
Mismatches 0;
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NAME: SMITH, WIlliam M
REGISTRATION NUMBER: 30,223
REFERENCE DOCKET NUMBER: 1572.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2420
TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
IFFORMATION FOR SEGUENCE CHARACTERISTICS:
                                                                            Best
                                                              Matches
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INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
NAME: Smith, William N
15
                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                      MOLECULE TYPE: protein
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
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Pred. No. 1.8e-08;
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Pred. No. 1.8e-08;
Mismatches 0;
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US-08-248-819A-2
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acids
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            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                               APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: protein
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TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 60
CORRESPONDENCE ADDRESS:
 SOFTWARE:
                                                                                                   COUNTRY:
                                                                                                                         STATE:
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PatentIn Release #1.0, Version #1.25
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                              Townsend and Townsend Khourie and
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Pred. No. 1.8e-08;
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CURRENT APPLICATION DATA:

US/08/248,819A

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 25,
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                                                                                                                                           PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/226

FILING DATE: 13-Apr-1994

ATTORNEY/AGENT INFORMATION:

NAME: Campbell, Cathryn A.

REGISTRATION NUMBER: 31,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 1572
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
                                                              TELEFAX: (619) 535-8949 INFORMATION FOR SEQ ID NO: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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                             SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acid
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LENGTH: 192 amino acid
                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US 08/112,208
FILING DATE: 26-AUG-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION
                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: CLASSIFICATION: 439
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TOPOLOGY:
                                                                                                                                  REFERENCE/DOCKET NUMBER:
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bell and Flores
Jolla Village Drive, Suite 700
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: Cell Death Pathway
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US-08-337-646A-2
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US-08-471-058-13
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Best Local Similarity
Matches 20; Conserv
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TELEX: 706141
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/471,05
FILING DATE: 06-JUN-1995
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/320,157
FILING DATE: 07-OCT-1994
APPLICATION NUMBER: 08/160,067
FILING DATE: 30-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Lehnhardt, Susan K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 33,943
REFERENCE/DOCKET NUMBER: 23
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-813-5600
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ADDRESSEE: MORRISON & FOERSTER
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APPLICANT:
                                                                                                                                                                                                                     TYPE: amino acid STRANDEDNESS: sir
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                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                    LENGTH:
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5770443
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                                                                                                                         100.0%; Score 106; DB 1; llarity 100.0%; Pred. No. 1.8e-08; Conservative 0; Mismatches 0;
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Pred. No. 1.8e-08;
; Mismatches 0;
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; Sequence 2, Application US/08337646A
; Patent No. 5856171
; GENERAL INFORMATION:

APPLICANT: KORSMEYER, Stanley J.

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US-08-337-646A-9
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                                                                                                                                                                                                                                                                                                                                                            Sequence 9, Application US/08337646A Patent No. 5856171
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Best Local Similarity
Matches 20; Conserv
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                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/337,646A
FILING DATE: 10-NOV-1994
                                                                                                                                                                                                                                                                                   APPLICANT: KORSMEYER
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/112,208
FILING DATE: 26-AUG-1993
ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 15726A-000620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/248,819 FILING DATE: 25-MAY-1994 PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                            STREET: 379 Lyttor CITY: Palo Alto STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CLASSIFICATION:
                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                      ADDRESSEE:
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NVENTION: CELL DEATH REGULATORS
SKOUENCES: 78

    Townsend and Townsend Khourie and Crew
379 Lytton Avenue

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(415) 326-2422
OR SEQ ID NO: 2:
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ilarity 100.0%;
Conservative (
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SYSTEM: PC-DOS/MS-DOS
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Pred. No. 1.8e-08;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 192;
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (415) 326-242 INFORMATION FOR SEQ ID NO:
                                                                                                                                             INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                          CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, Donald R
                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA: APPLICATION NUMBER: US
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TELECOMMUNICATION INFORMATION:
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NAME: Smith, William M
                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: 314-727-5188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 25-MAY-PRIOR APPLICATION DATA:
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                                                 FEATURE:
                                                                 MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: CELL DEATH REGULATORS NUMBER OF SEQUENCES: 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
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TOPOLOGY: li
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                  NAME/KEY:
LOCATION:
                                                                                  TOPOLOGY:
                                                                                              STRANDEDNESS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Howell & Harernamp, ....
STREET: 7733 Forsyth Blvd., Suite 1400
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 OTHER INFORMATION:
                                                                                                                                LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 106; DB 2; ilarity 100.0%; Pred. No. 1.8e-08; Conservative 0; Mismatches 0;
                    Protein 1..192
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326-2422
/note= "Human BAX polypeptide"
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US-08-856-034-2
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Best Local Similarity
Teaches 20; Conserva
                                                                                                                                                                                                                                                                                               ; NAME/KEY: Protein
; LOCATION: 1..192
; OTHER INFORMATION: /note= "Human Bax polypeptide"
US-08-856-531-9
                                                                                                                            RESULT 12
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                                                                         Sequence 2, Application US/08856034 Patent No. 5955595
                                                                                                                                                                                                                                               Query Match
Best Local Similarity
           GENERAL INFORMATION:
APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 31
                                                                                                                                                                                                                                      Matches
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INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
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COMPOTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, Donald R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein
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                                                                                                                                                                        1 MDGSGEQPRGGGPTSSEQIM 20
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                                                                                                                                                                                                                                    Mismatches
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; OTHER INFORMATION: /note= "Human BAX polypeptide" US-08-856-034-2
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Best Local 9
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                                                                                                                            ZIP: 63105

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
NAME: HOLLAND, Donald R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 97/
TELECOMMUNICATION INFORMATION:
                                                               CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: NUMBER OF SEQUENCES:
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ATTORNEY/AGENT INFORMATION:
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TOPOLOGY: lir
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HOLLAND, Donald R.
NITMBER: 35,197
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                                                                                                                   US/08/856,034
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Pred. No. 1.8e-08;
; Mismatches 0;
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: LOCATION: 1.192
OTHER INFORMATION: /note= "Human BAX polypeptide"
US-08-856-034-9
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US-08-471-057-13
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   Matches
                    Best Local
                               Query Match
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Best Local Similarity
                                                                                                                                      TELEFAX: (415) 494-079
TELEX: 706141
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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TELEFAX: 314-727-6092
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/320
FILING DATE: 07-0CT-1994
ATTORNEY/AGENT INFORMATION:
NAME: LEHNHARDT, SUSAN K.
REGISTRATION NUMBER: 33,94
                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 23
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/471,057
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: KIEFER, MICHAEL C.
APPLICANT: BARR, PHILIP J.
TITLE OF INVENTION: NOVEL APOPTOSIS-MODULATING PROTEINS, DNA
TITLE OF INVENTION: ENCODING THE PROTEINS AND METHODS OF USE THEREOF
NUMBER OF SEQUENCES: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
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TOPOLOGY: line.
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OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: Palo Alto
STATE: Californi
                                                                                          TYPE: amino acid
STRANDEDNESS: sir
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ZIP: 94304-1018
                                                                               TOPOLOGY:
                                                                                                                        LENGTH:
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                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
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                    Similarity
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6015687
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    Conservative
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Score 106; DB 3,
Pred. No. 1.8e-08;
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Search completed: January 7, 2003, 12:31:49
Job time: 11.7949 secs
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US-09-127-048-7
; Sequence 7, Application US/09127048
; Patent No. 6165732
                                                                                                                                                                                                                         ; ORGANISM: Homo sapiens US-09-127-048-7
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APPLICANT: Korsmeyer, Stanley J.
APPLICANT: Schlesinger, Paul H.
TITLE OF INVENTION: Method for Identifying Apoptosis Modulating Compounds
FILE REFERENCE: 6029-6052
CURRENT APPLICATION NUMBER: U$/09/127,048
CURRENT FILING DATE: 1998-07-31
EARLIER FILING DATE: 1998-07-31
EARLIER FILING DATE: 1997-10-14
NUMBER OF SEQ ID NOS: 9
                                                                                                                                                                                                                                                                                                   SEQ ID NO 7
                                                                                                                                             Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 20; Conservative (
                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                            TYPE: PRT
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                                                                                           1 MDGSGEQPRGGGPTSSEQIM 20
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Pred. No. 1.8e-08;
; Mismatches 0;
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Database
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Sequence:
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  and is derived by analysis of the total score distribution
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Copyright (c) 1993 - 2003 Compugen
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AAY70819	AAY70818	AAY70821	AAY70820	AAY70817	AAY70816	AAY90738	AAY90737	AAY90736	AAY90735	ID	SUMMARIES
Mouse neuroprotect	Human neuroprotect	Mouse neuroprotect	Human neuroprotect	Mouse neuroprotect	Human neuroprotect	Rat BAX amino acid	Mouse BAX amino ac	Human BAX amino ac	Apoptotic regulati	Description	

13-APR-2000.

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AAU14611	AAB63461	5	AAG34512	AAG34513	ABP40487	AAU49519	AAY39263	AAW10688	AAY78512	AAU76552	AAU76551	AAB50539	AAB35129	AAB35128	AAB48286	AAB74126	AAB74125	AAB74122	AAB74121	AAY69202	AAY70828	AAY70827	AAW87809	AAW87808	AAW87805	AAW87804	AAY05435	AAY05434	AAY34150	AAR71407	7140	341	7082	AAY70822
Novel bone marrow	Human breast cance		Arabidopsis thalia		Staphylococcus epi	Propionibacterium	Coding region of c	Bax omega protein,	Truncated Bax amin	Human Bax polypept	Murine Bax polypep	Human Bax protein	Human Bax. Homo s	Murine Bax. Mus s	Human Bax protein.	Human bcl-2 associ	Murine bcl-2 assoc	Murine bcl-2 assoc	Human bcl-2 associ			Human BAX alpha pr	A human Bcl-2 asso	Murine Bcl-2 assoc	Murine Bcl-2 assoc	A human Bcl-2 asso	prote		Human wild-type Ba	Murine Bax protein	Human Bax protein.	truncated B	Mouse neuroprotect	Human neuroprotect

## ALIGNMENTS

AAY90735 standard; peptide; 19 AA

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RESULT 1
AAY90735
ID AAY9
XX AAY9
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Mus musculus.
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                                                                                                                                                                                                                     /label= Ser, Gly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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Best Loc
Matches
               The present invention describes a pure protein (P1) comprising a BAX polypeptide lacking an apoptotic regulation of targeting (ART) domain. P1 has cytostatic activity and can be used in the modulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes a pure protein (P1) comprising a BAX polypeptide lacking an apoptotic regulation of targeting (ART) domain. P1 has cytostatic activity and can be used in the modulation of apoptosis. The polypeptides and methods from the present invention are useful for identifying compounds that modulate apoptosis which can then be used for treating cancer. The present sequence represents a consensus sequence for an ART domain derived from human, mouse and rat, which is
apoptosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BAX polypeptide lacking that modulate apoptosis
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                                                                                                                                                                                                                                                                             regulation of targeting
                                                                                                                                                                                                                                                                                                amino acid
                                                        Page 52;
                                                                                                                           Goping S;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19 AA;
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       polypeptides and methods from the
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100.0%;
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which can then
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be used
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                                                                                                                                                                                                                                                                             ART domain; BAX; apoptosis;
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       present invention
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RESULT 4
AAY90738
ID AAY9

AAY90738 standard; peptide;

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RESULT 3
AAY90737
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                                                                                                                                                                                                                                The present invention describes a pure protein (P1) comprising a BAX polypeptide lacking an apoptotic regulation of targeting (ART) domain. P1 has cytostatic activity and can be used in the modulation of apoptosis. The polypeptides and methods from the present invention are useful for identifying compounds that modulate apoptosis which can the be used for treating cancer. The present sequence represents a mouse BAX peptide sequence of amino acids 1 to 20, which is used in an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                useful for identifying compounds that modulate apoptosis which can then be used for treating cancer. The present sequence represents a human BAX peptide sequence of amino acids 1 to 20, which is used in an example from the present invention.
                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Apoptotic regulation of targeting
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                                                                                                                                                                                                                 example
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GGPTSSEQI
                                         GGPTSSEQI 19
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9; Conser
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                                                                                     Conservative
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100.0%;
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100.08;
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RESULT 5
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XX AAY7
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XT 31-J
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XX Huma
KW neur
KW apop
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Best Local
                                                                                                                                                                                              neuron; anti-apoptotic; cerebroprotective, neuropease; peripheral nerve apoptosis; treatment; neurodegenerative disease; peripheral nerve spinal cord injury; head trauma; stroke.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a pure protein (P1) comprising a BAX polypeptide lacking an apoptotic regulation of targeting (ART) domain. P1 has cytostatic activity and can be used in the modulation of apoptosis. The polypeptides and methods from the present invention are useful for identifying compounds that modulate apoptosis which can then be used for treating cancer. The present sequence represents a rat BAX peptide sequence of amino acids 1 to 20, which is used in an
                                Domain
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                                                                                                                                                                                                                                                                                                                                                                     Human neuroprotective truncated BAX protein, tBAX70
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                                                                                    Region
                                                                                                                                                                      Homo sapiens
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                                                                                                                                                                                                                                                                                                             truncated BAX protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20 AA;
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                             /note=
59..70
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                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cytostatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100
                                                       "N-terminal region of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    an ART domain, which can then
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ART domain,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 9;
Pred. No.
                                                                                                                                                                                                                                                                                                             tBAX70; BAX alpha; BCL-2 family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20 SEQ ID NO:4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       useful for identifying agents be used for treating cancer -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21;
                                                       BAX alpha"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BAX; apoptosis;
                                                                                                                                                                                                                                                                                      neuroactive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                     injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
RESULT 6
AAY70817
ID AAY7
XX AAY7
XX AAY7
XX MOUS
XX MOUS
XX MOUS
XX MOUS
XX APORP
KW APORP
XX APORP
XX MUS
XX MO2(
PN WO2(
PN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                      spinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY70817;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY70817
                                                                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Johnson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-OCT-1999;
                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (UNIW )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    UNIV
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Mouse; truncated BAX protein; tBAX70; BAX alpha; BCL-2 family; neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is a specifically claimed truncated BAX protein tBAX70 which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of first 70 amino acids of human BAX alpha, that includes the N-terminal region and a portion of the i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BAX alpha, that includes the N-terminal region and a portion of the BH3 domain. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 4; Page 32; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200023083-A1
                                                                                                                                                                                                                                                            Mouse neuroprotective truncated BAX protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200023083-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11 GGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                        GGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000-339513/29
                                                                                                                                                                                  cord injury;
                                                                                                                                                                                                                               truncated BAX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
9; Conser
                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Easton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΑA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0177315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US24747
                                                                          /note=
59..70
                           /note= "BH3 domain in of amino acids 59-73"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "BH3 domain in
of amino acids 59-73"
                                                                                                                    Location/Qualifiers
                                                          /label= Partial_BH3_domain
                                                                                                                                                                                                                                                                                                                                                            Protein;
                                                                                                                                                                                   head
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                         "N-terminal region of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .4%;
                                                                                                                                                                                  trauma; stroke.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 9; DB 2; Pred. No. 0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                            70
                                                                                                                                                                                                                               BAX alpha;
                                             the full-length BAX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the full-length BAX alpha consists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21;
.081;
                                                                                                                                                                                                                                                               tBAX70
                                                                                         BAX alpha"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 70
                                                                                                                                                                                                                                 BCL-2 family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                             alpha consists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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RESULT 7
AAV70820
ID AAV70820
ID AAV70820
ID AAV70820
ID AAV70
XX
XX
ID 31-J
XX
ID Huma

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence is a specifically claimed truncated BAX protein tBAX70 which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of first 70 amino acids of mouse BAX alpha, that includes the N-terminal region and a portion of the BH3 domain. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                   22-OCT-1999;
                                                                                                        27-APR-2000
                                                                                                                                                                        WO200023083-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   spinal cord injury; head trauma; stroke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   apoptosis; treatment; neurodegenerative disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neuron;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; truncated BAX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human neuroprotective truncated BAX protein tBAX70 mutant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY70820;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY70820 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ror
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Johnson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UNIW ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000-339513/29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       anti-apoptotic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BAX polypeptides useful for preventing apoptosis of neurons reatment of nervous system disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           47.48; nilarity 100.08; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Easton R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA,
                                   99WO-US24747.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0177315
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                                                                                                                                                                                                                                                                                                                                             of amino
55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note=
59..70
                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                  /label= Partial_BH3_domain
/note= "BH3 domain in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                            /note=
                                                                                                                                                                                                                                                                                                                 'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "N-terminal region
                                                                                                                                                                                                                                         "Wild
                                                                                                                                                                                                                                                                                                         "Wild type Ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cerebroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .0%;
                                                                                                                                                                                                                                                                                                                                                                                 acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 9;
Pred. No.
                                                                                                                                                                                                                                         type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tBAX70M; BAX alpha; BCL-2 family; mutant;
roprotective; neuroprotective; neuroactive;
                                                                                                                                                                                                                                                                                                                                                                              main in 59-73"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
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                                                                                                                                                                                                                                         Ser
                                                                                                                                                                                                                                         Į.
                                                                                                                                                                                                                                                                                                      is substituted by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 21;
>. 0.081;
                                                                                                                                                                                                                                         substituted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from
                                                                                                                                                                                                                                                                                                                                                                                                          full-length BAX alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BAX alpha"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peripheral
                                                                                                                                                                                                                          , ра
                                                                                                                                                                                                                                         Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nerve injury,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                  consists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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RESULT 8
AAY70821
В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                     Misc-difference
                                                                                                                                                                                                                                                 apoptosis; treatment; neurodegenerative disease; peripheral nerve injury; spinal cord injury; head trauma; stroke.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is a specifically claimed truncated BAX prote tBAX70 mutant (tBAX70M) which inhibits neuronal apoptosis induced trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain of human BAX alpha.

Thicks the BH1, BH2 and C-terminal transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Truncated BAX polypeptides useful for prevent for the treatment of nervous system disorders
         22-OCT-1998;
                                                                                                                         Misc-difference
                                                                                                                                                                  Domain
                                                                                                                                                                                                 Key
                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                     Mouse neuroprotective truncated BAX protein tBAX70 mutant.
                                                                                                                                                                                                                                                                                                                          31-JUL-2000
                                                                                                                                                                                                                                                                                                                                               AAY70821;
                                                                                                                                                                                                                                                                                                                                                                    AAY70821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           spinal cord injury,
                             22-OCT-1999;
                                                  27-APR-2000
                                                                     WO200023083-A1
                                                                                                                                                                                     Region
                                                                                                                                                                                                                               Mus musculus.
                                                                                                                                                                                                                                                                       neuron; anti-apoptotic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (UNIW ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                       GGPTSSEQI 19
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                                                                                                                                                                                                                                                                                  truncated
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 33-34; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WASHINGTON
        98US-0177315
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                             99WO-US24747
                                                                                                    /note=
                                                                                                                                                                  /note=
59..70
                                                                                                                        /label= Partial_BH3_domain /note= "BH3 domain in the of amino acids 59-73" 55
                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                  вах
                                                                                          note=
                                                                                                                                                                                                                                                                                                                                                                    Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            head trauma and stroke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ₽,
                                                                                                                                                                                                                                                                                 protein; tBAX70M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       47.4%;
100.0%
                                                                                                                                                                          "N-terminal region
                                                                                          "Wild
                                                                                                               "Wild
                                                                                                                                                                                                                                                                        cerebroprotective; neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .08;
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                                                                                          type
                                                                                                             type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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No.
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                                                                                                                                                                                                                                                                                BAX alpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , O.
                                                                                                               substituted
                                                                                          substituted by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21;
.081;
                                                                                                                                            full-length
                                                                                                                                                                             from
                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                             BAX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       apoptosis
                                                                                                                                                                                                                                                                                  BCL-2 family; mutant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                          alpha"
                                                                                                             bу
                                                                                                                                             BAX alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
                                                                                                               Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MAX protein, induced by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of neurons
                                                                                                                                                                                                                                                                        neuroactive;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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RESULT 9
AAY70818
ID AAY7
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DT 31-,
DT 31-,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Вb
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Best Local S
Matches 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is a specifically claimed truncated BAX protein, tBAX70 mutant (tBAX70M) which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain from mouse BAX alpha. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
for, the treatment of nervous system disorders
                           Truncated BAX polypeptides useful for preventing
                                                                                                                                                                                            Johnson
                                                                                                                                                                                                                                                              (UNIW )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; truncated BAX protein; tBAX78; BAX alpha; BCL-2 family; neuron; anti-apoptotic; cerebroprotective; neuroprotective; ne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human neuroprotective truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Truncated BAX polypeptides useful for preventing apoptosis of neurons for the treatment of nervous system disorders - \,
                                                                                                                                                                                                                                                                                                                                             22-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                   22-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-APR-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Johnson
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9; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 injury; head trauma; stroke
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                                                                                                                                                                                                                                                                  WASHINGTON
                                                                                                                                                                                        Easton
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
1..58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label=
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100.08
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. 0.081;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  alpha'
                               apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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                                   neurons
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Best Local !
The present sequence is a specifically claimed truncated BAX tBAX78 which inhibits neuronal apoptosis induced by trophic f deprivation. The protein consists of first 78 amino acids of BAX alpha, that includes the N-terminal region and BH3 domain. It lacks the BH1, BH2 and C-terminal transmembrane do
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BAX alpha, that includes the N-terminal region and BH3 domain. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal
                                                                                                     Truncated BAX polypeptides useful for preventing apoptosis of neurons for the treatment of nervous system disorders \cdot
                                                                                                                                                                                                                                                                                                                                                                                                                                                   neuron; anti-apoptotic; cerebroprotective; neuro apoptosis; treatment; neurodegenerative disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tBAX78 which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of first 78 amino acids of human BAX alpha, that includes the N-terminal region and BH3
                                                                             Claim
                                                                                                                                          N-PSDB;
                                                                                                                                                                               Johnson
                                                                                                                                                                                                                                  22-OCT-1998;
                                                                                                                                                                                                                                                          22-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                       spinal cord injury; head trauma; stroke
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      apoptosis,
                                                                                                                                                                                                       (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                   27-APR-2000
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                                                                                                                                                                                                                                                                                                                                                Doma in
                                                                                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY70819;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY70819 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 4; Page 33; 43pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11 GGPTSSEQI 19
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                                                                                                                                          2000-339513/29
DB; AAD00123.
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                                                                           4; Page 33; 43pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neuroprotective
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             truncated BAX
                                                                                                                                                                               EM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cord
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9; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence is a specifically claimed truncated BAX protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                               Easton
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
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                                                                                                                                                                                                                                                          99WO-US24747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          neurodegenerative diseases, peripheral nerve injury, ury, head trauma and stroke.
                                                                                                                                                                                                                                                                                                                                                /note=
59..73
                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                   /label= BH3_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       truncated BAX protein,
                                                                                                                                                                                                                                                                                                                                                            "N-terminal region of BAX alpha"
                                                                             English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tBAX78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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.089;
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sease; peripheral
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                                                  BAX protein
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transmembrane domains of

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Best Local
                                    The present sequence is a specifically claimed truncated BAX protein, tBAX78 mutant (tBAX78M) which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain of human BAX alpha, and a novel c-terminal sequence of 8 amino acids not present in BAX alpha. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity.
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                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                           Truncated BAX polypeptides useful for preventing apoptosis for the treatment of nervous system disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; truncated BAX protein; tBAX78M; BAX alpha; BCL-2 family; mutant; neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury;
                        The present sequence is used to treat diseases associated with neuronal
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Johnson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-OCT-1998;
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)B; AAD00125.
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 Page 34;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                          EM,
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neurodegenerative diseases,
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71..78
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                                                                                                                                                                                                                                                             43pp;
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RESULT 12
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                                   It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal
                                                                         tBAX78 mutant (tBAX78M) which inhibits neuronal apoptosis induced trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain of mouse BAX alpha, and a novel C-terminal sequence of 8 amino acids not present in BAX alpha.
                           apoptosis, e.g. neurodegenerative diseases,
                                                                                                                                    Claim 4; Page 34-35; 43pp;
                                                                                                                                                        N-PSDB;
                                                                                                                                                                                                                 Johnson EM,
                                                                                                                                                                                                                                    (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                       22-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                          22-OCT-1999;
                                                                                                                                                                                                                                                                                            27-APR-2000
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                                                                                                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY70823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                spinal cord injury,
                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                              neuron;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11 GGPTSSEQI 19
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                                                                                                                  present sequence
                                                                                                                                                                                              2000-339513/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                          cord
                                                                                                                                                                                     AAD00126
                                                                                                                                                                                                                                                                                                                                                                                                                                                 anti-apoptotic; cerebroprotective; neuro
is; treatment; neurodegenerative disease;
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9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78
                  injury,
                                                                                                                                                                                                                                                                                                                                                                                                                                        injury; head trauma; stroke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                 Easton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                       98US-0177315
                                                                                                                                                                                                                                                                          99WO-US24747
                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BAX
                                                                                                                                                                                                                                                                                                                                  /note=
                                                                                                                                                                                                                                                                                                                                                    /note=
                                                                                                                                                                                                                                                                                                                                                                        note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein;
                   head
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 head trauma
                                                                                                                 is a specifically claimed truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47.4%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         truncated
                                                                                                                                                                                                                                                                                                                                 "sequence not
                                                                                                                                                                                                                                                                                                                                                     "Wild
                                                                                                                                                                                                                                                                                                                                                                        "Wild
                   trauma
                                                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BAX protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . No.
                  stroke.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BAX alpha; BCL-2 family; mutant;
                                                                                                                                                                                                                                                                                                                                                     substituted
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sease; peripheral
                          peripheral
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                                                                                                                                                                                                                                                                                                                                  BAX alpha"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mutant
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                           nerve injury,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   nerve
                                                                                                                                                                                                                                                                                                                                                                                                                                                             neuroactive;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local :
                                                                                                                                                                                                                                for its function is still present in the truncated process. The Bol-2 gene family associated x protein) is a proapoptotic member of the Bol-2 gene family. Bax functions as a primary response gene in the p53-regulated apoptotic pathway. The Bax gene promoter has 4 p53 binding sites and the expression of Bax is upregulated at the transcriptional level by p53, and Bax mRNA and protein expression have been shown to increase following induction of p53. Bax protein can function as a homodimer, or it can heterodimerise with other Bol-2 gene family members such as the antiapoptotic protein Bcl-2. Heterodimerisation of Bol-2 family members provides a means of controlling cell death via the "rheostat" model. This model suggests that the relative amounts of Bol-2 and Bax determine the susceptibility of a cell to undergo apoptosis. If Bol-2 is in excess, Bcl-2/Bax heterodimers predominate and cell death is inhibited. If Bax is the process of the pro
Additionally, Bax can function in its movement. Additionally, Bax can function in its movement this Bax gene may death. Use of novel adenoviral vectors containing this Bax gene may augment and complement wild-type p53 gene therapy, which induces a cell cycle arrest and/or apoptosis in malignant cells carrying p53 mutations. In addition, Bax overexpression could provide the apopto
                                                                                                                                                                        in excess, however, Bax homodimers predominate and the cell becomes susceptible to apoptosis following exposure to an apoptotic stimulus Additionally, Bax can function in its monomeric form to accelerate or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            contains a single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO9946371-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     McDonnell TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TEXA ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-NOV-1999
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nes 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             adenovirus vectors, used for killing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence represents a human truncated Bax protein. The cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999-551404/46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGPTSSEQI 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               resulting in a truncated protein. However, the domain responsible s function is still present in the truncated protein. Bax (Bcl-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              s a single base deletion relative to the wild-type (AAZ19764), a frameshift which leads to translation of a premature stop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 148-149;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for treating
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       151pp; English.
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Pred. No.
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b. 0.089;
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Best Local :
of death repressor activity. Down requality cancer therapy, controlling hyperplasias and class in autoimmunity by favouring death eff
                                                                                                                                                                          promote cell cycle progression nor does it necessarily alter the dose reponse to limiting concentrations of IL-3. bcl-2 has been shown to form heterodimers with this 21 kD protein, Bax. Overexpressed Bax accelerates apoptotic cell death induced by cytokine deprivation in an IL-3 dependent cell line, and it also acts to counter the death repressor activity of bcl-2. Therefore, the ratio between bcl-2 and Bax determines cell survival or death following an apoptotic stimulus. The invention
                                                              mutant protein substantially incapable of binding Bax and/or inco
of death repressor activity. Down regulation of bcl-2 is useful
                                                                                                                    cell survival or death following an apoptotic stimulus. The invergives a mutant form of bcl-2 in which there is at least one amino substitution or deletion in the BHI or BH2 domains. This makes the substitution of deletion in the BHI or BH2 domains.
                                                                                                                                                                                                                                                                                                                                                                               hematopoietic cell systems. bcl-2 is a 26 kD membrane-associated cytoplasmic protein and is thought to function by enhancing the survival of hematopoietic cells of B and T origins rather than directly promoting proliferation of these cell types. bcl-2 has not been shown to directly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           associated with the human bcl-2 alpha and beta proteins, the seq of which are given in AAR71404-05 respectively. bcl-2 is encoded proto-encogene and is capable of inhibiting apoptosis in many
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                apoptosis; cytokine;
hyperplasia; immuno
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apoptosis; membrane-associated cytoplasmic protein; B cell; T cel
proliferation; cell cycle progression; Bax; apoptotic cell death;
apoptosis; cytokine; death repressor; BH1; BH2; cancer therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence represents human Bax protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 3; 133pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-AUG-1993;
25-MAY-1994;
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                           CC proto-oncogene and is capable of inhibiting apoptosis in many

CC hematopoletic cell systems. bcl-2 is 26 kD membrane-associated

CC cytoplasmic protein and is thought to function by enhancing the survival

CC of hematopoletic cells of B and T origins rather than directly promoting

CC proliferation of these cell types. bcl-2 has not been shown to directly

CC promote cell cycle progression nor does it necessarily alter the dose

CC reponse to limiting concentrations of IL-3. bcl-2 has been shown to form

CC heterodimers with this 21 kD protein, Bax. Overexpressed Bax accelerates

CC apoptotic cell death induced by cytokine deprivation in an IL-3 dependent

CC cell line, and it also acts to counter the death repressor activity of

CC bcl-2. Therefore, the ratio between bcl-2 and Bax determines cell

CC survival or death following an apoptotic stimulus. The invention gives

CC a mutant form of bcl-2 in which there is at least one amino acid

CC substitution or deletion in the BH1 or BH2 domains. This makes the

CC mutant protein substantially incapable of binding Bax and/or incapable

CC of death repressor activity. Down regulation of bcl-2 is useful in
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of death repressor activity. Down regulation cancer therapy, controlling hyperplasias and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; bcl-2; alpha; beta; proto-oncogene; hematopoietic cell line; apoptosis; membrane-associated cytoplasmic protein; B cell; T cell; proliferation; cell cycle progression; Bax; apoptotic cell death; apoptosis; cytokine; death repressor; BHI; BH2; cancer therapy; hyperplasia; immunodeficiency disease; AIDS; neurodegeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence represents murine Bax protein. Bax is a protein which is associated with the bcl-2 alpha and beta proteins. bcl-2 is encoded by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Methods for producing and identifying mutant bcl-2 proteins -
that lack death repressor activity and/or lacks binding to Bax.
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25-MAY-1994;
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9; Conser
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Search completed: January Job time: 31.2051 secs

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12:38:30

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Copyright (c) 1993 - 2003 Compugen
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIE

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Result No.	Score	% Query Match	% Query Match Length DB	DB	ID	Description
₩ .	20	100.0	24	4	Q8WXU1	08wxu1 homo sapien
2	20	100.0	164	4	Q9UQD6	homo
ω	20	100.0	179	4	Q9NYG7	
4	12	60.0	192	6	Q8SQ43	08sq43 felis silve
ر ن	10	50.0	24	11	Q8VHY7	O8vhy7 mus musculu
0	9	45.0	743	10	Q9M221	Q9m221 arabidopsis
7	8	40.0	531	4	Q9Y3X0	Q9y3x0 homo sapien
8	7	35.0	11	11	Q9R0K9	Q9r0k9 mus musculu
9	7	35.0	304	Çī	Q9N357	Q9n357 caenorhabdi
10	7	35.0	541	10	Q9S7V5	Q9s7v5 arabidopsis
11	7	35.0	589	G	018658	018658 trypanosoma
12	7	35.0	748	10	Q8W2R7	Q8w2r7 oryza sativ
13	7	35.0	968	ω	P87199	P87199 ustilago ma
14	7	35.0	1217	4	060336	060336 homo sapien
15	6	30.0	45	4	Q9H039	Q9h039 homo sapien
16	6	30.0	60	16	Q93JL2	Q93jl2 streptomyce

45	44	4. 3	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
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Q9NX73	Q96566	Q99034	Q08107	Q9BVV5	Q9M476	Q9V3W7	Q9JE41	Q9F1Q4	Q8VXG5	Q8W2P2	Q8VX43	Q8VXN2	Q8VX68	008664	Q8WUZ0	043770	Q94I13	Q9RC72	Q8WVT5	Q9HBR0	081993	Q9FPB4	Q9YE12	Q910x8	Q9FSV9	Q12583	Q9VF73	Q9TKV0
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## ALIGNMENTS

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RESULT 1

OBWXI

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Q9UQD6
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Best Local Similarity 100.0%;
Matches 20; Conservative 0
Q9UQD6
Q9UQD6;
01-MAY-2000
01-MAY-2000
01-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.

Thornborrow E.C., Schwartzfarb E.M., Manfredi J.J.;
Transcriptional activation of both the human and murine bax genes.";
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.

EMBL; AF339054; AAL73333.1; -.

NON_TER
24
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25
SEQUENCE 24 AA; 2379 MW; 8C3D3E8B7479B798 CRC64;
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O8WXU1;
01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
BCL2-associated X protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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1 MDGSGEQPRGGGPTSSEQIM 20
    (TrEMBLrel. 13, (TrEMBLrel. 13, (TrEMBLrel. 21,
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Created)
Last sequence update)
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Pred. No. 8.2e-15;
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01-OCT-2000
01-OCT-2000
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Mammalia; Eutheria;
NCBI_TaxID=9606;
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
MCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                       Q9NYG7
                                                                                                  PROSITE; PS50062; BCL2_FAMILY;
PROSITE; PS01080; BH1; 1.
PROSITE: PS01259; BH3; 1.
SEQUENCE 179 AA; 19718 MW;
                                                                                                                                   InterPro; IPR000712; Bc12_BH.
InterPro; IPR002475; BCL2_family.
Pfam; PF00452; Bc1-2; 1.
SMART; SM00337; BCL; 1.
                                                                                                                                                                  Biochem. Biophys. F
EMBL; AF247393; AAI
HSSP; Q07817; 1MAZ.
                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE=20237095;
                                                                                                                                                                                                                                       NCBI_TaxID=
                                                                                                                                                                                                    MEDLINE=20237095; PubMed=10772918; Schmitt E., Paquet C., Beauchemin Characterization of bax-sigma, a
                                                                                                                                                                                                             Schmitt
                                                                                                                                                                                                                                                                       Homo sapiens
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Meria; Primates; (
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Last sequence update)
Last annotation updat
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                                                                         Pred. No. 5.2e-14;
                                                                                 Score 20;
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                                                                                                  5802B0AC73B2E4CE CRC64;
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l death-inducing isoform
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4.8e-14;
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AC Q9
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OC SE
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Q8VHY7
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Q8SQ43;
01-JUN-2002
01-JUN-2002
01-JUN-2002
                                                 01-OCT-2000
01-OCT-2000
01-DEC-2001
                                                                                                                                                                                                                                             Thornborrow E.C., Schwartzfarb E.M., Manfredi J.J.;
"A conserved intronic response element mediates direct p53-dependent transcriptional activation of both the human and murine bax genes.";
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
BBBL, AF339055; AAL73334.1; -.
                               Hypothetical T8B10_40.
                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. STRAIN=BALB/C; Thornborrow E.C.,
                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2002 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
Bcl2-associated X protei
                                                                                                                                                                                                                                                                                                                                                                                                                       Q8VHY7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Yamazaki J., Oguma K., Kano R., Hasegawa A.; "molecular cloning of feline bcl-2 family."; Submitted (MAR-2002) to the EMBL/GenBank/DDBJ EMBL; AB080724; BAB85810.1; 852D271AE869238
         Arabidopsis thaliana (Mous
Eukaryota; Viridiplantae;
                                                                                Q9M221;
                                                                                           Q9M221
                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9685;
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                                                                                                                                            1 GGPTSSEQIM :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ch 60.0%;
l Similarity 100.0%;
l2; Conservative
                                                                                                                                                                                    l Similarity
10; Conserv
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                                        0 (TrEMBLrel. 15, 0
0 (TrEMBLrel. 15, 1
1 (TrEMBLrel. 19, 1
al 82.6 kDa proteír
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2 (TrEMBLrel.
2 (TrEMBLrel.
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                                                                                           PRELIMINARY;
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 Magnoliophyta;
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_el. 20, La_
_sLrel. 20, L?
x protein (F
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                                                                                                                                                                                                                             2326 MW;
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(Mouse-ear cress).
htae; Streptophyta; Embry
liophyta; eudicotyledons;
                                        protein.
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21,
21,
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Last sequence up
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Pred. No.
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Pred.
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Sciurognathi; Muridae;
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annotation
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thes 0;
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; Murinae; Mus
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Felis.
          Tracheophyta;
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Best Local :
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Matches 9; Conserv
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    Q9R0K9;
                                                                                                                                                                                                                                                                                                                                                 Strausberg R.;
Submitted (JUI-2001) to the EMBL/GenBank/DDBJ
EMBL; AL050284; CAB43385.1; -
EMBL; BC002787; AAH02787.1; -
EMBL; BC009743; AAH09743.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Hypothetical 59.7 kDa protein (DKFZP586M1019 protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EU Arabidopsis sequencing project; submitted (MAR-2000) to the EMBL/GenBank/DEEMBL; AL138646; CABB1824.1; -
InterPro; IPR000977; DNA_ligase.
PROSITE; PS00697; DNA_LIGASE_Al; UNKNOWN_1.
Hypothetical protein.
SEQUENCE 743 AA; 82639 MW; EB30CA4906AC
                                                                                                                                                                                                                                                                                                            EMBL; BC009743; AAH09
Hypothetical protein
SEQUENCE 531 AA; 5
                         Q9R0K9
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DKFZP586M1019.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rieger M., Mueller-Auer S., Zipp M.,
Lemcke K., Mayer K.F.X., Quetier F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=SKIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=SKIN;
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NCBI_TaxID=3702;
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les 8; Conserv
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Heubner D., r
"1999) to
                         PRELIMINARY;
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100.0%;
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Pred. No
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Pred. No.
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                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                               DE6C474F3253C30C CRC64;
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Salanoubat M.;
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Best Local
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01-OCT-2000 (TrEMBLrel. 15, La
01-DEC-2001 (TrEMBLrel. 19, La
Y55F3AR.2 protein.
Y55F3AR.2.
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Best Local :
                                                                                                                             STRAIN-BRISTOL N2;
waterston R;
Submitted (MAR-2000) to the
EMBL; AC024827; AAF60805.1;
HSSP; P80028; 1TOF.
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01-MAY-2000 (TrEMBLrel. 13, Last sequence up
01-DEC-2001 (TrEMBLrel. 19, Last annotation
BC1-2 associated X protein (Fragment).
BAX OR BAX.
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SEQUENCE FROM N.A.

MEDLINE=20035745; PubMed=10570968;

Igata E., Inoue T., Ohtani-Fujita N., Sowa Molecular cloning and functional analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                SEQUENCE
                                                                                   PRINTS; PR00421; THIOREDOXIN. PROSITE; PS00194; THIOREDOXIN
                                                                                                          InterPro; IPR000063; Thiored
Pfam; PF00085; thiored; 1.
                                                                                                                                                                                                                                                  STRAIN=BRISTOL N2;
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Rhabditidae; Pelode
                                                                                                                                                                                                                                                                                                                           Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                         Q9N357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           promoter.";
Gene 238:407-415(1999)
                                                                Redox-active center. SEQUENCE 304 AA;
                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                       "Genome sequence of the nematode C. elegans: a platform for investigating biology. The C. elegans Sequencing Consortium."; Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                              NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090;
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  7
  QPRGGGP 13
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                      Similarity 7; Conser
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                      Conservative
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                                                                                    THIOREDOXIN;
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inae; Caenorhabditis.
                                35.0%;
100.0%;
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100.0%;
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Last annotation updat
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Pred.
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                     Mismatches
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of the
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                      Indels
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                      Gaps
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QPRGGGP

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09S7V5;

01-MAY-2000 (TrEMBLrel. 13, Created)

01-MAY-2000 (TrEMBLrel. 13, Last sequence

01-DEC-2001 (TrEMBLrel. 19, Last annotati

T16011.4 protein (AT3G09000/T16011_4).

T16011.4 OR MZB10.3.
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018658;
01-JAN-1998
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EMBL; AF4
SEQUENCE
                 SEQUENCE FROM N.A.
STRAIN-ESMERALDO;
Fouts D.L., Miller
                                                                                                                                                                                   Eukaryota; Euglenozoa;
NCBI_TaxID=5693;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cheuk R., Chen H., Kim C.J., Koesema E., Meyers M.C., Banh J., Bowser L., Carninci P., Dale J.M., Goldsmith A.D., Hayashizaki Y., Ishida J., Jiang P.X., Jones T., Kamija A., Karlin-Neumann G., Kawai J., Lam B., Lee J.M., Lin J., Liu S.X., Miranda M., Narusaka Nguyen M., Onodera C.S., Palm C.J., Pham P.K., Quach H.L., Sakurai Satou M., Seki M., Southwick A., Tang C.C., Torium M., Yamada K., Sakurai Satou M., Seki M., Southwick A., Tang C.C., Torium M., Yamada K.,
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                        Trypanosoma
                                                                                                                                                                                                                                                                                                                     PAR3B OR PAR3C OR PAR3A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (OCT-2001) to the EMBL; AC010871; AAF07827.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lin X., Kaul S., Town C.D., Benito M., Creasy T.H., Haas B., Ronning C.M., Koo H., Fujii C.Y., Utterback T.R., Barnstead Bowman C.L., White O., Nierman W.C., Fraser C.M.; "Arabidopsis thallana chromosome III pl MZB10 genomic sequen "Arabidopsis thallana chromosome III pl MZB10 databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. Cheuk R., Chen H., Kim C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Arabidopsis cDNA clones.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yamamura
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Lin X., Kaul S., Tow
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D.E.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC009326; AAD56316.1; AF428276; AAL16108.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Υ.,
                                                                                                                                                                                                                                                                                                                                                                                                 B (TrEMBLrel. 05,
B (TrEMBLrel. 05,
B (TrEMBLrel. 05,
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                                                                                                                                                                                                                                                                                 cruzi.
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                 М.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yu S., Shinozaki K.,
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100.0%;
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                 J.E.;
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15;
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Barnstead
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Q8842F
ID Q8842F
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DT 01-MA
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DE PULAT
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GN 0SJUE
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GN 101-JU
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RP SMART
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ProDom; PD000001; Euk_pkinase; 1.

SMART; SM00101; EGF; 2.

SMART; SM00201; EGF_like; 2.

SMART; SM00219; TyrKc; 1.

SMART; SM00219; TyrKc; 1.

SMART; SM00219; TyrKc; 1.

PROSITE; PS00107; ASX_HYDROXYL; UNKNOWN.

PROSITE; PS01187; EGF_CA; UNKNOWN.1.

PROSITE; PS01187; EGF_CA; UNKNOWN.1.

PROSITE; PS01107; PROTEIN_KINASE_TOM; 1.

PROSITE; PS00108; PROTEIN_KINASE_ST; UNKNOWN.1.
                    P87199;
01-JUL-1997
01-JUL-1997
01-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AC098565; AAL69423.1; InterPro; IPR000152; Asx_hydroxyl.
InterPro; IPR000561; EGF-like.
InterPro; IPR000881; EGF_Ca.
InterPro; IPR000719; Euk_pkinase.
InterPro; IPR002290; Ser_thr_pkinase.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Saski C., Henry D., Oate, "Rice Genomic Sequence." Submitted (FEB-2002) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Spermatophyta; Magnoliophyta;
Ehrhartoideae; Oryzeae; Oryza
NCBI_TaxID=4530;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2002 (TrEMBLrel. 20, Last sequenc 01-JUN-2002 (TrEMBLrel. 21, Last annotat Putative wall-associated protein kinase.
                                                                                                      P87199
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    Kinesin
                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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InterPro; IPR001245; Tyr_pkinase.
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2 (TrEMBLrel.
cor protein.
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nilarity 100.0%;
Conservative
                                                              (TrEMBLrel.
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R., Simmons
                                                              Created)
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Pred. No. 20;
D; Mismatches
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                                                                                  InterPro; IPR002114; HPT_SerP_site.
InterPro; IPR00180; WD40.
Pfam; PF00400; WD40; 8
PRINTS; PR00320; GPROTEINBRPT.
SMART; SM00320; WD40; 7.
PROSITE; PS00589; PTS_HPR_SER; UNKNOWN_1.
PROSITE; PS50294; WD_REPEATS_2; 1.
PROSITE; PS50294; WD_REPEATS_REGION; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         060336;
060336;
                                                                                                                                                                                                                                                                                                                                             KIAA0596.

Homo sapiens (Human).

""baryota; Metazoa; Chordata;
""baryota; Metazoa; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                     01-AUG-1998 (TrEMBLrel. 07, Created)
01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
KIAA0596 protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00380; KINESINHEAVY.
SMART; SM00129; KISC; 1.
PROSITE; PS50067; KINESIN_MOTOR_DOMAIN2; 1.
ATP-binding; Coiled coil: Microtubules; Mot
SEQUENCE 968 AA; 107472 MW; 3A3B282020E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBO J. 16:3464-3473(1997).
EMBL; U92845; AAB63337.1; -
HSSP; P33176; 1BG2.
                                                                                                                                                                                     -!- SIMILARITY: CONTAINS 7 WD REPEATS (TRP-ASP DOMAINS)
                                                                                                                                                                                                                 code for large proteins in vitro."; DNA Res. 5:31-39(1998).
                                                                                                                                                                                                                                       "Prediction of the coding sequences of unidentified human genes. IX. The complete sequences of 100~{\rm new} cDNA clones from brain which can
                                                                                                                                                                                                                                                                           MEDLINE=98290545; PubMed=9628581; Nagase T., Ishikawa K., Miyajima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR001752; kinesin_motor
Pfam; PF00225; kinesin; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ustilago maydis (Smut fungus).

Eukaryota; Fungi; Basidiomycota; Ustilaginomycetes;

Ustilaginomycetdae; Ustilaginales; Ustilaginaceae; Ustilago.

NCBI_TaxID=5270;
                                                                          Repeat; WD repeat.
                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9606;
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 Score 7; DB 4;
Pred. No. 31;
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RESULT 15
Q9H039
Q9H03
AC Q9H03
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DT 01-MA
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DE Hypot
GN Hypot
GN Homo
OC Euka
OC Homo
CC Euka
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Search completed: January Job time: 26.641 secs
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01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
Hypothetical 5.1 kDa protein (Fragment)
DKFZP547M114.
                                                                                                                                                                                                                                                             Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                            Bloecker H., Boecher M., Brandt P., Mewes H.W., Weil B., Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases EMBL, AL512746; CAC21671.1; •.
                                                                                                                                                                                                    TISSUE=BRAIN;
Bloecker H.,
                                                                                                                                                                                                                                                                                                                                                                        Q9н039
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                                                                                                                                                       NON_TER
                                                                                                                                                                 Hypothetical protein.
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Perfect score:
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FSA_BOVIN
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PGK_MYCLE
CP5G_CANTR
CP5L_DEBHA
CP5L_CANMA
CP5L_CANMA
CP5L_CANMA
CP5F_CANTR
HS74_PARLI
SYYM_PODAN
YPKL_YEAST
DNLI_ARATH
CAP1_SORBI
CAP2_SORBI
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                                           4 homo sapien
5 homo sapien
0 rattus norv
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                            Ouery Match 100.0%;
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                                                                                    InterPro; IPR002475; BCL2_family.
InterPro; IPR000712; Bc12_BH.
Pfam; PP00452; Bc12_1.
SMART; SM0033; BCL; 1.
SMORT; SM0033; BCL; 1.
PROSITE; PS01080; BH1; 1.
PROSITE; PS01058; BH2; 1.
PROSITE; PS01058; BH2; 1.
PROSITE; PS0062; BCL2_FAMILY; 1.
PROSITE; PS0062; BCL2_FAMILY; 1.
PROSITE; PS0062; BCL2_FAMILY; 1.
PROSITE; DS0062; BCL
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1 MDGSGEQPRGGGPTSSEQIM 20
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Score 20; DB 1; Pred. No. 9.1e-14; ; Mismatches 0;

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AAC50142 9; BAX.	nformatics it instit statement a license to license	ntry is s Insti	CONTAINS CONTAINS BELONGS T	LOCATION: PRODUCTS: ISOFORMS,	MG. man B		an). a; Chordata; a; Primates;	Rel. 34, Cr Rel. 34, La Rel. 41, La cytoplasmic	STANDARD;		967 967 967 967	966 966 966	966 966	964
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	The ong oved.	is Orma	S 1 BCL-2 HOMOLOGY 1 S 1 BCL-2 HOMOLOGY 2 TO THE BCL-2 FAMILY.	Cytoplasmic (Potential). THE MEMBRANE ISOFORM ALPH BETA, GAMMA AND DELTA ARE	Apte S.S., Mattei MG., Olsen B.R.; "Mapping of the human BAX gene to chromosome 19q13 isolation of a novel alternatively spliced transcr	07685.	a; Craniata; Vertebrata; s; Catarrhini; Hominidae;	Created) Last sequence update) Last annotation update nic isoform delta.	PRT; 143 AA.	ALIGNMENTS	CAP2_SOYBN CAP2_SOYBN	CAP2_FLATR CAPP_FLAAU CAPP_MEDSA CAPP FLADR	CAPP_TOBAC CAP1_MESCR CAP1_SACHY	CAPP_AMAHP
	are no restrictions on it its content is in no was tage by and for commercial co.//www.isb-sib.ch/announce	produced through a collaboration tics and the EMBL outstation	(BH1) DOMAIN. (BH2) DOMAIN.	Oytoplasmic (Potential). THE MEMBRANE ISOFORM ALPHA AND THE THREE BETA, GAMMA AND DELTA ARE GENERATED BY	e 19q13.3-q13.4 and transcript, BAX delta.";		tebrata; Euteleostomi; ominidae; Homo.	e)				P30694 flaveria tr Q42730 flaveria au Q02735 medicago sa Q01647 flaveria nr		43299

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Query Match
                                                                                                                                     InterPro; IPR002475; BCL2_family InterPro; IPR000712; Bcl2_BH. Pfam; PP00452; BcL2_71. SMART; SM00337; BCL; 1. SMART; SM00337; BCL; 1. PR0SITE; PS01080; BH1; 1. PR0SITE; PS01258; BH2; 1. PROSITE; PS01259; BH3; 1. PROSITE; PS0159; BH3; 1. PROSITE; PS0162; BCL2_FAMILY; 1
                                                   DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Reyes R.A., Cockerell G.L.;
"Increased ratio of bcl-2/bax expression is associated with leukemia virus-induced leukemogenesis in cattle.";
Virology 242:184-192(1998).
-!- FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING--!- FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-Holstein; TISSUE-Thymus; MEDLINE-98162580; PubMed-9501056;
                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                       use by non-profit institutions as long as its content modified and this statement is not removed. Usage by ar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bos taurus
                                                                                                                        Apoptosis;
                                                                                                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                    entities requires a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bovidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Apoptosis regulator BAX, membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JUL-1999 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    002703;
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                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK
BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INTI
WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY:
APOPTOTIC MEMBERS OF THE BCL-2 FAMILY (BY SIMILARITY).
APOPTOTIC MEMBERS OF THE BCL-2 HOMOLOGY 1 (BH1) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                       s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SPLICING.
DOMAIN: I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE CESSATION OF SPERM PRODUCTION (BY SIMILARITY).

SUBUNIT: FORMS HOWODIMERS AND HETERODIMERS TOGETHER WITH BCL-2,

BLB 19K PROTEIN, BCL-X(L), MCL-1 AND A1 (BY SIMILARITY).

SUBCELLULAR LOCATION: Membrane-bound (By Similarity).

ALTERNATIVE PRODUCTS: A 21 KDA MEMBRANE PROTEIN ALPHA AND THE TWO CYTOPLASMIC PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING TO, AND ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG E1B 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C, ACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS. BAX DEFICIENCY
                                                                                                                                                                                                                                                                                 U92569; AAC48806.1;
Q07817; 1MAZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bovinae; Bos.
                                                   Transmembrane;
59 73
98 118
150 165
172 192
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                        license agreement
                                    21259
                                                                                                                                                                                                                                                BCL2_family.
Bcl2_BH.
.0%;
                                    MW;
                                                                                                                        Alternative
                                                    BH2.
POTENTIAL.
Score 20;
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                                6B4D5BABF1D5F87E CRC64;
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(See http://www.isb-sib.ch/announce/
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DB
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Length 192;
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RESULT 3
BAXA_HUMAN
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                                             This
                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT PLASMACYTOMA GLU-11, VARIANT T-CELL ACUTE LYMPHOBLASTIC LEUKEMIA ARG-67, AND VARIANT BURKITT LYMPHOMA VAL-108.
MEDLINE=98200607; PubMed=9531611;
Meijerink J.P.P., Mensink E.J.B.M., Wang K., Sedlak T.W.,
Sloetjes A.W., de Witte T., Waksman G., Korsmeyer S.J.;
"Hematopoietic malignancies demonstrate loss-of-function mutations"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              death and protein binding f
EMBO J. 14:5589-5596(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       accelerates
Cell 74:609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Apoptosis regulator BAX, membrane isoform a
                             between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chittenden T., Flemington C., Houghton A.B., Elangovan B., Chinnadurai G., Lutz R.J.; Elangovan domain in Bak, distinct from BHI "A conserved domain in Bak, distinct from BHI death and protein binding functions.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chittenden T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MUTAGENESIS, AND MEDLINE-96091131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oltvai Z.N., Milliman C.L., Korsmeyer S.J.; "BC1-2 heterodimerizes in vivo with a conse accelerates programmed cell death."; Cell 74:609-619(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=B-cell;
MEDLINE=93364978;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q07812;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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            s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                        Burkitt lymphoma, and plasmacytoma.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3
SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                 TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BI BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THE BAX FOR THE ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                             ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR I HOMOLOG E1B 19K PROTEIN. INDUCES THE RELEASE OF ACTIVATION OF CASPASE-3, AND THERREBY APOPTOSIS: SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGE E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1. SUBCELLULAR LOCATION: Membrane-bound. ALTERNATIVE PRODUCTS: THE MEMBRANE ISOFORM ALPH
                                                                                                                                                                   APOPTOTIC MEMBERS OF THE BCL-2 FAMILY. DISEASE: Defects in BAX are found in so
                                                                                                                                                                                                                                                                CYTOPLASMIC ISOFORMS, BETA, ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING
                                                                                                                                                      hematopoietic malignancies as T-cell acute
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION OF BH3; PubMed=8521816;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chordata; Craniata; Vertebrata; Euteleostomi;
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mismatches 0;
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                                                                                          DOMAIN.
DOMAIN.
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01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-thomis regulator BAX, cytoplasmic isoform
                                                                                                       MEDLINE=93364978; PubMed=8358790;
Oltvai Z.N., Milliman C.L., Korsmeyer
"Bcl-2 heterodimerizes in vivo with a
accelerates programmed cell death.";
Cell 74:609-619(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR002475; I
InterPro; IPR000712; I
Pfam; PF00452; Bcl-2;
SMART; SM00337; BCL;
                                                                                                                                                                   TISSUE=B-cell;
                                                                                                                                                                                                               Eukaryota; Metazoa; Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; L22473; AAA03619.1; PIR; A47538; A47538.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                     Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                         BAXB_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Apoptosis; Anti-c
Disease mutation.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
        ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG E1B 19K PROTEIN.

SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH BCL-2.

E1B 19K PROTEIN. BCL-x(L), MCL-1 AND A1.

SUBCELLULAR LOCATION: Cytoplasmic.

ALTERNATIVE PRODUCTS: THE MEMBRANE ISOFORM ALPHA AND THE THREE CYTOPLASMIC ISOFORMS, BETA, GAMMA AND DELTA ARE GENERATED BY
                                                                                            FUNCTION: ACCELERATES PROGRAMMED CELL
  ALTERNATIVE SPLICING
                                                                                                                                                                                                                                                                                                                                                                                                MDGSGEQPRGGGPTSSEQIM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600040;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q07817;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HGNC:959; BAX.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-oncogene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             192
                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59
98
150
172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1MAZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ã,
                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73
118
165
192
11
                                                                                                                                                                                                                 Primates;
                                                                                                                                                                                                                           Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21184
                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BC12_BH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BCL2_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      .0%;
                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Transmembrane; Alternative splicing;
                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /FTId=VAR_007809
G -> V (IN BURKITT LYMPHOMA; LOSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /FTId=VAR_013575
G -> R (IN T-CELI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G -> E (IN PLASMACYTOMA).
                                                                                                                                                                                                              Craniata; Ve
Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /FTId=VAR_013576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HOMODIMERIZATION).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G -> R (IN T-CELL ACUTE LYMPHOBLASTIC LEUKEMIA; LOSS OF HETERODIMERIZATION
                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 20;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BCL-2 OR BCL-X(L)).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL
                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6C0CDB0A7DEE4994 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                       218
                                                                                                                                conserved
                                                                                                                                           S.J.;
                                                                                                                                                                                                                          Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                       1.2e-13;
                                                                                                                                                                                                                                                                                                                        Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1;
                                                                                            DEATH
                                                                                                                                                                                                               Hominidae;
                                                                                                                                                                                                                                                              beta.
                                                                                                                             homolog,
                                                                                            ВΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 192;
                                                                               Y BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                             вах,
                                                                                            TO,
                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                               that
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WITH
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RESULT
BAXC_HO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                   accelerates programmed cell
Cell 74:609-619(1993).
-i- SUBCELLULAR LOCATION: C:
-i- ALTERNATIVE PRODUCTS: TT
-CYTOPLASMIC ISOFORMS, B
                                                                                                                                                                                                                                                                      01-FEB-1995
01-FEB-1995
16-OCT-2001
                                                                                         MEDLINE=93364978; PubMed-8358790;
Oltval Z.N., Milliman C.L., Korsmeyer
"Bcl-2 heterodimerizes in vivo with a
accelerates programmed cell death.";
                                                                                                                                                                                                                                                                                                                                         HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; L22474; AAA03620.1; PIR; B47538; B47538. HSSP; Q07817; 1MAZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboratic between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it
            ALTERNATIVE -!- SIMILARITY:
                                                                                                                                                TISSUE=B-cell
                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                  Eukaryota;
                                                                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                     BAX protein,
                                                                                                                                                                                                                                                                                                              Q07815;
                                                                                                                                                                                                                                                                                                                            BAXC_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMART; SM00337; BCL; 1.
PROSITE; PS01080; BH1; 1.
PROSITE; PS01258; BH2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            - -
                                                                                                                                                                                                     Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS01259; BH3; PROSITE; PS50062; BCL2_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR000712; EPfam; PF00452; Bc1-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR002475;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MIM; 600040;
                                                                                                                                                                                                                                                                                                                                                                                                               1 MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUES.

DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAD ANI
BAX FOR THEIR PRO-APOPTOTIC ACTUITY AND FOR THEIR INTERACTION
WITH ANVI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH1) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                               MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HGNC:959; BAX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alternative splicing.
59 73 BH3.
98 118 BH1.
150 165 BH2.
                                                                                                                                                                                                                  Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       218 AA;
                                                                                                                                                                                                                                                                     (Rel. 31, Created)
(Rel. 31, Last sequence up
(Rel. 40, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                          cytoplasmic isoform
                                                                                                                                                                                                                                                                                                                            STANDARD;
            BELONGS
                        SPLICING
                                      ISOFORMS, BETA,
                                                                                                                                                                                                     Primates;
                                                                                                                                                                                                                Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24220 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rmatics Institute. There are no resinstitutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bc12_BH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BCL2_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _FAMILY; 1.
           TO THE
                                                Cytoplasmic.
THE MEMBRANE ISOFORM ALPHA AND
                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 20;
Pred. No.
                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
           BCL-2 FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F69DCD70F960192F CRC64;
                                       GAMMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                          gamma
                                       AND
                                                                                                                     S.J.;
                                                                                                                                                                                                                                                                    update)
                                                                                                         conserved
                                                                                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.4e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1;
                                                                                                                                                                                                                                                                                                                            Ą
                                       DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 218;
                                       ARE
                                                                                                       homolog,
                                       GENERATED
                                       RATED BY
                                                                                                         Вах,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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RESULT 6
BAXA_RAT 1
BAXA_RAT 1
BAXA_RAT 1
BAXA_RAT 1
BAXA_RAT 1
BAX AC 0638
DT 01-1
RAT APOUNT NCB.
RAT Inh.
RAT MEDD RA TILL End CC -1--
CC CC -1-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
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Best Local S
Matches 11
                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 37-169 FROM N.A.
STRAIN-Sprague-Dawley; TISSUE-Ovary;
MEDLINE-95129487; PubMed-7828536;
MEDLINE-95129487; PubMed-7828536;
Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
"Expression of members of the bcl-2 gene family in the immature rat ovary: equine chorionic gonadotropin-mediated inhibition of granulosa ovary: equine chorionic gonadotropin-mediated inhibition of granulosa cell apoptosis is associated with decreased bax and constitutive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Neurosci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genes
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BAXA_RAT STANDARD; PRT; 192 AA (63690; Q62995; Q64383; Q1-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation updat Apoptosis regulator BAX, membrane isoform a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                     bcl-2 and bcl-xlong messenger ribonucleic acid l
Endocrinology 136:232-241(1995).
-!- FUNCTION: ACCELERATES PROGRAMMED CELL DEATH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      developmental down-regulation
oligodendrocytes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Madison D.L., Pfeiffer S.E.;

"Cloning of the 3' end of rat bax-alpha and corresponding of the 3' end of in differentiating primary,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=97147318; PubMed=8994223;
Madison D.L., Pfeiffer S.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-Brain,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=96178771; pubMed=8600029;
Han J., Sabbatini P., Perez D., Rao L., Modha D., White E.;
"The E1B 19K protein blocks apoptosis by interacting with and
inhibiting the p53-inducible and death-promoting Bax protein.";
Genes Dev. 10:461-477(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; L22475; AAA03621.1; -. Genew; HGNC:959; BAX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 75-192 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MIM; 600040;
SPLICING.
TISSUE SP
                                               ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRG ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRG HOMOLOG ELB 19k PROTEIN. INDUCES THE RELEASE OF CYTOCHROME ACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS.

SUBGNIT: FORMS HOMOLIMERS AND HETERODIMERS TOGETHER WITH BCELB 19k PROTEIN, BCL-X(L), MCL-1 AND A1.

SUBCELLULAR LOCATION: Membrane-bound.

ALTERNATIVE PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERN CYTOPLASMIC PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MDGSGEQPRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MDGSGEQPRGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lett.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alternative: 41 AA; 4678
     SPECIFICITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220:183-186(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              55.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               splicing.
8 MW; D94639AABB927859 CRC64;
  EXPRESSED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 11;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
  Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                update)
form alpha.
  WIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.8e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                   acid levels.
  VARIETY
                                                        PROTEIN ALPHA AND THE GENERATED BY ALTERNATI
                                                                                                                                                                                                                         H BY BINDING TO, AND OR ITS ADENOVIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
  S.
                                                           ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cultured
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                         BCL-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
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RRRRRR ROCC OC DUTTO
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                                                                                                                                                                                                                                                                                                                                                                          BAXA_MOUSE
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Best Local S
Matches 11
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CONFLICT
CONFLICT
CONFLICT
CONFLICT
                            SEQUENCE FROM N.A.
STRAIN-C57BL/6 X DBA/2;
MEDLINE-93364978; PubMed-8358790;
Oltvai Z.N., Milliman C.L., Korsmeyer S.J.;
"Bcl-2 heterodimerizes in vivo with a conserved homolog,
                                                                                                                                                                                                                                                                  01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; U49729; AAC26327.1; -.
EMBL; U59184; AAC52998.1; -.
EMBL; U32098; AAA75200.1; -.
EMBL; S76511; AAC60700.2; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. Thuse by non-profit institutions as long modified and this statement is not removed
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accelerates
Cell 74:609
                                                                                                                                                                          Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                     Q07813;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS01259; PROSITE; PS50062;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS01080; PROSITE; PS01258;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR002475; BCL2_InterPro; IPR000712; Bcl2_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -
                                                                                                                                                       NCBI_TaxID=10090;
                                                                                                                                                                                            Eukaryota; Metazoa;
                                                                                                                                                                                                                  Mus musculus
                                                                                                                                                                                                                                                         Apoptosis
                                                                                                                                                                                                                                                                                                                                                        BAXA_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP;
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DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAY
BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR IN
WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH1) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (SH3) DOMAIN.
SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGPTSSEQIM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PF00452; Bcl-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P53563;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  l Similarity
11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SM00337; BCL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                         regulator BAX, membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 192
programmed cell death.";
-619(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         59
98
150
172
72
76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                  (Mouse)
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                                                                                                                                                                                                                                                                                                                                                        STANDARD;
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BH1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BCL2_FAMILY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BH3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BH2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  118
165
192
72
76
126
149
                                                                                                                                                                       Chordata; Craniata; Vertebrata; I
Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21350 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    55.0%;
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S -> N (IN
L -> M (IN
C -> Y (IN
C -> F (IN
D -> E (IN
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BH1.
BH2.
                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7B3CD198D56DF589 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                          update)
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REF.
REF.
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                                                                                                                                                                                                                                                         alpha
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIK, BID, BAK, BAD AND FOR THEIR INTERACTION FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bу
                                                                                                                                                                              Murinae;
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                                      вах,
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RESULT 8
YGRM_MICRO
ID YGRM_M
AC P24621
DT 01-MAR
DT 01-FEB
DT 16-OCT
DE Hypoth
OS Microm
OC Bacter
OC Actino
OC Microm
OX NCBI_T
RN [1]
RP SEQUEN
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Best Local
                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                               P24621;
01-MAR-1992 (Rel. 21, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
SEQUENCE FROM N.A. MEDLINE=91192615; PubMed=2013410;
                                                                                                         Hypothetical protein in GRM 3'region Micromonospora rosea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                              Micromonospora
                                                                            Actinomycetales; Micromonosporineae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS01269; BH1; 1.
PROSITE; PS01258; BH3; 1.
PROSITE; PS01259; BH3; 1.
PROSITE; PS50062; BCL2_FAMILY; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; L22472;
HSSP; P53563;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute. There are no restuse by non-profit institutions as long as its content
                                                                                              Bacteria;
                                                                                                                                                                                                    YGRM_MICRO
                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00452; Bcl-2; 1
SMART; SM00337; BCL; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This
                                              NCBI_TaxID=1878;
                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MGD; MGI:99702; Bax.
InterPro; IPR002475; BCL2_family.
InterPro; IPR000712; Bcl2_BH.
                                                                                                                                                                                                                                                                                1
                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                           11 GGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAD AND BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INTERACTION WITH ANNI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE CESSATION OF SPERM PRODUCTION.
SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH BCL-2,
E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1.
SUBCELLILLAR LOCATION: Membrane-bound,
ALTERNATIVE PRODUCTS: A 21 kDa MEMBRANE PROTEIN ALPHA AND THE TWO CYTOPLASMIC PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING TO. AND ANTAGONIZING THE APOPTOSIS REPESSOR BELL-2 OR ITS ADEMOVIRUS HOMOLOG EIB 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C. ACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS. BAX DEFICIENCY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SPLICING.
                                                                                                                                                                                                                                                                             GGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SWISS-PROT entry is copyright. It is produced through a ceen the Swiss Institute of Bioinformatics and the EMBL
                                                                                                                                                                                                                                                                                                                                        10;
                                                                                          Actinobacteria; Actinobacteria (class); Actinobacteridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Transmembrane; Alternative splicing
                                                                                                                                                                                                                                                                                                                                                                                                   59
98
150
172
192
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                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                     ΑA;
                                                                                                                                                                                                    STANDARD;
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118
165
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21394 MW;
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100.0%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL
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                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                     D2E0B3566579FAFF CRC64;
                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                            Micromonosporaceae;
                                                                                                                         (Fragment).
                                                                                                                                                                                                    105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (See http://www.isb~sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                      DB 1;
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                                                                                                                                                                                                                                                                                                                                                        .0017
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                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                     Length 192;
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                             Query Match
Best Local Similarity
Matches 6; Conserv
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                        Oxidoreductase; NAD; Plastoquinone; SEQUENCE 120 AA; 13680 MW; DF67
                                                                                                                    InterPro; IPR000440; Oxidored_q4.
Pfam; PF00507; oxidored_q4; 1.
                                                                                                                                                                                         use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (See
                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entropean Bioinformatics Institute. There are no restuse by non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                 Proc. Natl. Acad. Sci. U.S.A. 96:10248-10253(1999).
-!- CATALYTIC ACTIVITY: NADH + plastoquinone = NAD(+) + plastoquinol.
-!- SIMILARITY: BELONGS TO THE COMPLEX I SUBUNIT 3 FAMILY.
                                                                                                                                                                                                                                                                                                                                                         MEDLINE=99398694; PubMed=10468594; Turmel M., Otis C., Lemieux C.; Turmel M., Otis C., Lemieux C.; The complete chloroplast DNA sequence of the green alga Nephrose olivacea: insights into the architecture of ancestral chloroplast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-JUN-2002 (Rel. 41, Last annotation update)
NADH-plastoquinone oxidoreductase chain 3, chloroplast (EC 1.6.5.3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antibiotic resistance; Hypothetical protein NON_TER 105 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Micromonospora purpurea and Micromonospora Gene 98:53-60(1991).
                                                                                                                                                   EMBL; AF137379; AAD54837.1;
                                                                                                                                                                              or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                genomes."
                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=NIES-484;
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=31312;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chlorodendrales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Viridiplantae; Chlorophyta; Prasinophyceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chloroplast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9TKX9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kelemen G.H., Cundliffe E., Financsek I.;
"Cloning and characterization of gentamicin-resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nephroselmis olivacea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NU3C_NEPOL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98
                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chlorodendraceae;
                          30.0%; 5
100.0%; Pr
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100.0%; Pr
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                                           Score 6; D
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Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                           DF6700BEE965C7F5 CRC64;
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                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                       Chloroplast
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12;
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RESULT 10
SMD1_CAEEI
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Matches
                                                                                                                                                                                                                                                                                          Query Match
                     SEQUENCE FROM N.A. MEDLINE-87078390; PLOWE D.G., Capon D. Goeddel D.V.;
                                                                                                                                  01-MAR-1989
01-MAR-1989
15-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _CAEEL
                                                                                                                                                                  RRAS_HUMAN P10301;
 "Structure related to
                                                                                 Eukaryota;
Mammalia;
                                                                                                                                                                                       HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Probable small nuclear ribonucleoprotein Sm D
                                                                                                      Homo sapie
                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                     NCBI_TaxID-
                                                                                                                  RRAS.
                                                                                                                                                                                                                                                                                                                                                                 EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Rhabditidae; Pelodei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T28D9.10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q10013;
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                                                                                                                          Ras-relate
                                                                                                                                                                                                                                                                                                                                            WormPep; T28D9.10; C
InterPro; IPR001163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1997
01-NOV-1997
                                                                                                                                                                                                                                                                                                                          Nuclear
                                                                                                                                                                                                                                                                                                                                   Pfam; PF01423; Sm;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=6239;
                                                                                                                                                                                                                              119 PRGGG
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                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                   8 PRGGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Nuclear (By similarity). SIMILARITY: BELONGS TO THE SNRNP CORE PROTEIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGGGP ·38
                                                                                                                                                                                                                                                                                                                                                                                                                                     SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                               U28738; AAA68313.1; -.
                                                                                                                                                                                                                                                                      Similarity 6; Conserv
                                                                                                                                                                                                                                                                                                                         protein;
 ras
           of the human
                             Capon D.J.,
                                                                             etazoa; Chordata;
htheria; Primates;
                                                                                                                                                                                                                                                                                                                126
                                                                                                                         (Rel. 10, Crea
(Rel. 10, Last
(Rel. 41, Last
protein R-Ras
                                                                                 (Human).
Laroa; Chordata;
                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                              124
                                                                                                                         protein
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the human and murine R-ras proto-oncogenes.";
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                                                                                                                                                                                                                                                                                                             Ribonucleoprotein; mRNA splicing; mRNA processing. A; 13625 MW; 24D266C7FA9DBD65 CRC64;
                              PubMed=3098437;
).J., Delwart E.,
                                                                                                                                                                                                                                                                                                                                                       CE02065
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100.0%; F
tive 0;
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Pred. No.
                                                                                Craniata; Vertebrata; Catarrhini; Hominidae;
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                             Sakaguchi A.Y.,
                                                                                                                                                                            218
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                                                                                                                                   update)
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         genes,
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                                                                                Hominidae;
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                              Naylor S.L.,
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                                                                                           Euteleostomi;
         genes closely
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RESULT 12
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01-JUL-1989
01-JUL-1989
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NP_BIND
                                         Lowe D.G., Capon D.J., Goeddel D.V.;
                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIGREAMS; TIGGEP-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M14949; AAA60256.1; --
EMBL; M14948; AAA60256.1; JOINED.
EMBL; BC016286; AAH16286.1; --
EMBL; BC016318; AAH16318.1; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLULAR LOCATION: INNER SURFACE OF PLASMA MEMBRANE POSSIBLY WITH ATTACHMENT REQUIRING ACYLATION OF THE C-TERMINAL CYSTEINE (BY SIMILARITY WITH RAS).
-!- SIMILARITY: TO RAS PROTEINS. BELONGS TO THE R-RAS SUB-FAMILY.
                                                                                SEQUENCE FROM N.A. MEDLINE=87078390;
                                                                                                                                                                                                                                                     Ras-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP; P01112; 1PLL.
SWISS-2DPAGE; P10301;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cell 48:137-146(1987).
  related
                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                                                                                                            Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                           RRAS_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR001806; InterPro; IPR005225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR003577;
InterPro; IPR001230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIM; 165090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genew; HGNC:10447;
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"Structure of the human related to ras proto-onc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LIPID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGGGP
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S; PR00449; RASTRNSFRMNG
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(Rel. 35, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19
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                                                                                                                                                                                                                                                                                                                                                           STANDARD;
  proto-oncogenes
                                                            PubMed=3098437;
D.J., Delwart E.,
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                                                                                                                                                                     Rodentia;
                                                                                                                                                                                      Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             small_GTP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Small_GTP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Prenyl_site.
Ras_trnsfrmng.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HUMAN
                     and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lipoprotein.

GTP (BY SIMILARITY).

GTP (BY SIMILARITY).

GTP (BY SIMILARITY).

GEPECTOR REGION (BY SIMILARITY).

GERANYL-GERANYL (BY SIMILARITY).

GERANYL-GERANYL (BY GERANYL).
                                                                                                                                                                                                                                                     (P23).
    murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                  Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                   R-ras
                                                          Sakaguchi A.Y., Naylor S.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No.
                                                                                                                                                                                                                                                                                                                                                           218
                                                                                                                                                                                                                                                                      update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB
21;
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                 genes,
                                                                                                                                                                                                                                                                                                                                                           A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>,,</u>
                                                                                                                                                                     Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 218;
                   novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                     Murinae;
                   genes closely
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                     Mus
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RESULT 13

ASPX_H
ASPX_H
AC
P26436
DT 01-FEB
DT 15-JUN
DE ACTOSOO
GN ACRV1.
OS HOMO S
OC EUKARYY
OC Mammal
OX NCB1_T
RN [1]
RP SEQUEN
RC MTISSUE
RX MEDLIN
RA Wright
RT antight
RT RD1.
RP SEQUEN
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P26436;
01-AUG-1992 (Rel. 23, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR003577; CINTERPro; IPR001230; IINTERPro; IPR001806; InterPro; IPR005225; Spfam; PF00071; ras; 1
                          SEQUENCE FROM N.A.
MEDLINE=93385341; PubMed=8373955;
Wright R.M., Suri A.K., Kornreich B.,
"Cloning and characterization of the
                                                                                                                                                                                                                                                                                                           MEDLINE=90268085; PubMed=1693291; Wright R.M., John E., Klotz K., F "Cloning and sequencing of cDNAs antigen SP-10.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LIPID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NP_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                              REVISIONS
                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ASPX_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTP-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMART; SM00173; RAS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NP_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGRFAMs;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cell 48:137-146(1987)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ||||||
| PRGGGP 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (BY SIMILARITY WITH RAS). SIMILARITY: TO RAS PROTEINS. BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION: INNER SURFACE OF PLASMA MEMBRANE POSSIBLY WITH ATTACHMENT REQUIRING ACYLATION OF THE C-TERMINAL CYSTEINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRGGGP
                                                                                                                                                                       Reprod.
                                                                                                                                                                                                                                                                                   Reprod.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  M21019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 100 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PR00449;
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protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGR00231;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             215
218 /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Prenylation; I
36 43
83 87
142 145
                                                                                                                                                              John E., Klotz K.,
. 43:903-903(1990).
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1PLL.
                                                                                                                                                                                                                                                                                42:693-701(1990)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rras.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43
87
145
66
215
23764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RASTRNSFRMNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; GTPase_Ras,
; Prenyl_site,
; Ras_trnsfrmng.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 small_GTP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Small_GTP.
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GTP (BY SIMILARITY).

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GTP (BY SIMILARITY).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EFFECTOR REGION (BY SIMILARITY).
GERANYL-GERANYL (BY SIMILARITY).
; ClD32CE7904322E5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Ve
Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                     Flickinger C.
s coding for t
                                                                                                                                                                                              Flickinger
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                          gene
                          Flickinger C.J., gene coding for t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             265
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21;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vertebrata;
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7.
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                                                                                                                                                                                           С.J.,
                                                                                                                                                                                                                                                                                                                                        the
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                                                                                                                                                                                                                                                                                                                                                               .J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                vesicle
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                                                                                                                                                                                                                                                                                                                                        human
                                                                                                                                                                                                                                                                                                                                                               Herr
                                                                                                                                                                                              Herr J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   indels
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                             the
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                                                                                                                                                                                                                                                                                                                                                            J.C.;
                                                                                                                                                                                                                                                                                                                                        intra-acrosomal
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                                                    Herr
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Signal;
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CHAIN
 VARSPLIC VARSPLIC
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VARSPLIC
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REPEAT
DOMAIN
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REPEAT
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REPEAT
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Genew; HGNC:127; ACRV1.
MIM; 102525; -.
                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Biol
                                                                           REPEAT
                                                                                                                       REPEAT
                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Herr J.C., Klotz K., Shannon J., Wright R.M., "Purification and microsequencing of the intra SP-10. Evidence that SP-10 heterogeneity resu
                             VARSPLIC
                                                        REPEAT
                                                                 REPEAT
                                                                                  REPEAT
                                                                                            REPEAT
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                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                          EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 78-100; 106-122 AND 127-151
MEDLINE-92345498; PubMed-1637938;
Herr J.C., Klotz K., Shannon J., Wright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Freemerman A.J., Flickinger C.J., Herr J.C "Characterization of alternatively spliced Mol. Reprod. Dev. 41:100-108(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Testis;
MEDLINE=95344748; PubMed=7619499;
                                                                                                                                                                                                                                                                                                                                                                                                                                      4, 5, 6, 7, 8, 9, 10 and 11 rest. TISSUE SPECIFICITY: TESTIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             processes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Strausberg R
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SUBCELLULAR LOCATION: NA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALTERNATIVE PRODUCTS: At least 11 isoforms; 1 (shown here),
                                                                                                                                                                                                                                                                                               M82967; AAA36625.1;
M82968; AAA36626.1;
S65583; AAB28238.2;
S655606; AAB28238.2;
S65576; AAB28238.2;
S65578; AAB28238.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPERMATIDS.
                                                                                                                                                                                                                                                                                        BC014588;
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                                                                                                                                                                                                                                                   Glycoprotein;
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66
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                                                                                                                                                                                                                                                                                        AAH14588
                                     6
                                                                                                                                                                                                                                                   Repeat;
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                                                                                                                                                                                                                                                                                               JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NASCENT
N-LINKED (GLCNAC...
MISSING (IN ISOFORM )
MISSING (IN ISOFORM 9)
8 AND ISOFORM 9)
MISSING (IN ISOFORM 6)
MISSING (IN ISOFORM 6)
                                                       11; are produced
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3 x 5 AA REPEATS
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intra-acrosomal protein
results from endoproteolytic
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RESULT 14

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Q04323;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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01-OCT-1996 (Rel. 34,
15-JUN-2002 (Rel. 41,
Hypothetical 33.4 kDa
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MISSING (IN ISOFORM 8).
S -> E (IN REF. 6).
G -> R (IN REF. 3).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SMART;
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Eukaryota; Metazoa;
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Bovidae; Caprinae;
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SM00280; KAZAL;
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US-08-337-646A-9
US-08-856-531-9
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US-08-9127-046-7
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RESULT 2 US-08-112-208C-2 Sequence 2, Ap Patent NO. 569 GENERAL INFORM APPLICANT: TITLE OF IN NUMBER OF IS CORRESPONDE ADDRESSEE STAFEET: CITY: PA STAFE: C. COUNTRY: COMPUTER RE MEDIUM TY COMPUTER RE MEDIUM TY COMPUTER RE OPERATING SOFTWARE: CURRENT APP APPLICATIO	Ouery Match Best Local Matches 2  Qy 1 MDG             Db 1 MDG	RESULT 1 US-09-166-028-3 US-09-166-028-3 Sequence 3, Applicati. Patent No. 6245885; GENERAL INFORMATION: APPLICANT: GOTDON C TITLE OF INVENTION: TITLE OF INVENTION: FILE REFERENCE: 500 CURRENT APPLICATION CURRENT APPLICATION CURRENT FILING DATE: NUMBER OF SEQ ID NOS SOFTWARE: FASTSEQ f SEQ ID NO 3 LENGTH: 20 TYPE: PRT ORGANISM: Homo sapi		2000 2000 2000 2000 2000 2000 2000 200
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US-08-112-208C-9
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Best Local :
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GENERAL INFORMATION:
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TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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TOPOLOGY: line
MOLECULE TYPE: I
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CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
NAME: Smith, William M
15
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TELECOMMUNICATION INFORMATION:
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ADDRESSEE: Townsend and Townsend Khourie and Crew
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TELECOMMUNICATION INFORMATION:
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NAME: Smith, William M
REGISTRATION NUMBER: 30,223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 26-AUC CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                      Local Similarity
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US-08-248-819A-2
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Best Local Similarity
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              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                  STREET: STREET: STREET: Palo Alto CITY: Palo Alto CTATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 08 FILING DATE: 26-AUG-1993 ATTORNEY/AGENT INFORMATION: NAME: Smith, William M REGISTRATION NUMBER: 30,7
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
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SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
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LENGTH: 192 amino acid
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                          NUMBER OF SEQUENCES:
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TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 60
CORRESPONDENCE ADDRESS:
SOFTWARE:
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PatentIn Release #1.0, Version #1.25
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Pred. No. 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Reed, John C.
APPLICANT: Sato, Takaaki
TITLE OF INVENTION: Interaction of Prot
TITLE OF INVENTION: Cell Death Pathway
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/226,876
FILING DATE: 13-APR-1994
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LJ 9882
TELECOMMUNICATION INFORMATION:
                                                                   TELEPHONE: (619) 535-90
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 9:
             SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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CITY: San Diego
STATE: California
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REGISTRATION NUMBER: 3(
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CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
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FOPOLOGY:
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20; Conserv
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4370 La Jolla Village Drive, Suite 700
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RESULT 8
US-08-337-646A-2
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Sequence 2, Application US/08337646A Patent No. 5856171 GENERAL INFORMATION:
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GENERAL INFORMATION:
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Best Local Similarity
Matches 20; Conserv
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INFORMATION FOR SEQ ID NO:
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PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/320,157

FILING DATE: 07-OCT-1994

FILING DATE: 07-OCT-1994

OR/180,067
                                                                                                                                                                                                                                                                                                                                                                                      NAME: Lehnhardt, Susan K
REGISTION NUMBER: 33,943
REFERENCE/DOCKET NUMBER: 230
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415.813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 08/1 FILING DATE: 30-NOV-1993 ATTORNEY/AGENT INFORMATION: NAME: Lehnhardt, Susan K
                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                         LENGTH:
TYPE: a
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STRANDEDNESS: sir
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STREET: 755 PAGE MILL ROAD
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                                                                                                                                                                                                                                                             linear
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                                                                                                                                                                           100.0%; Score 20; DB 1; 100.0%; Pred. No. 1.5e-12; tive 0; Mismatches 0;
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GENERAL INFORMATION:
APPLICANT: KORSMEYER, Stanley J.
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/337,646A
FILING DATE: 10-NOV-1994
CLASSIFICATION: 435
                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acids
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TELEPHONE: (415) 326-2400
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NAME: Smith, William M
REGISTRATION NUMBER: 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/248,819
FILING DATE: 25-MAY-1994
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                      APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
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                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                       STATE:
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                                                                                                                                                                                    SSEE: Townsend and Townsend Khourie and Crew
7: 379 Lytton Avenue
Palo Alto
California
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SYSTEM: PC-DOS/MS-DOS
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Pred. No.
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US-08-856-531-2
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Patent No. 5942490
GENERAL INFORMATION:
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                                                                                                                                                              TELEFAX: 314-727-6092 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 63105
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS: Howell & Haferkamp, L.C.
ADDRESSEE: Howell & Haferkamp, L.C.
STREET: 7733 Forsyth Blvd., Suite 1400
                                                  FEATURE:
                                                                 MOLECULE TYPE:
                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acid
                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: 314-727-5188
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REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
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APPLICATION NUMBER: 1
FILING DATE: 26-AUG-
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STREET: //
NAME/KEY: Protein LOCATION: 1..192 OTHER INFORMATION:
                                                                                  TOPOLOGY:
                                                                                              STRANDEDNESS:
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                                                                                                                                                                                                                                                REGISTRATION NUMBER:
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                                                                                                                              192 amino acids
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VENTION: CELL DEATH REGULATORS
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/note= "Human BAX polypeptide"
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: Sequence 2, Application US/08856034
Patent No. 5955595
GENERAL INFORMATION:
APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH R
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
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: Sequence 9, Application US/08856531

: Patent No. 5942490
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INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acids
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SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
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ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, Donald R.
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LOCATION:
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ZIP: 63105
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SYSTEM: PC-DOS/MS-DOS
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                              CELL DEATH REGULATORS
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100.0%; P
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Pred. No. 1.5e-12;
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Patent No. 5955595
GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                        APPLICATION NUMBER: US/0
FILING DATE:
CLASSIGICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, Donald R.
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ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, Donald R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 97
TELECOMMUNICATION INFORMATION
                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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TELECOMMUNICATION INFORMATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 63105
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TOPOLOGY: li
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                                                                                                         US/08/856,034
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US-08-471-057-13
                                                              US-08-471-057-13
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                Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
 Matches
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TELEFAX: 314-727-6092.
INFORMATION FOR SEQ ID NO: 5
                                                                                                                                                        TELEX: 706141
INFORMATION FOR SEQ ID NO: 13:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: /...
STREET: /...
CITY: Palo Alto
CTATE: California
"SA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: KIEFER, MICHAEL C.
APPLICANT: BARR, PHILLP J.
TITLE OF INVENTION: NOVEL APOPTOSIS-MODULATING PROTEINS, DNA
TITLE OF INVENTION: ENCODING THE PROTEINS AND METHODS OF USE
NUMBER OF SEQUENCES: 22
                                                                                                                                                                                                 REGISTRATION NUMBER: 33,943
REFERENCE/DOCKET NUMBER: 23647-20007.20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/32
FILING DATE: 07-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: LEHNHARDT, SUSAN K.
                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                        SEQUENCE CHARACTERISTICS:
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ADDRESSEE: MORRISON & FOERSTER
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                                                                                          TYPE: amino acid
STRANDEDNESS: sin
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OTHER INFORMATION: /note= "Human Bax polypeptide"
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                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
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                                                                              TOPOLOGY:
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Search completed: January 7, 2003, 12:40:52 Job time : 12.7949 secs
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                                                                                                                                                                                                            ; TYPE: PRT; ORGANISM: Homo sapiens
US-09-127-048-7
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US-09-127-048-7
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NUMBER OF SEQ ID NOS: 9
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 7
LENGTH: 192
                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 7, Application US/09127048 Patent No. 6165732
                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/127,048
CURRENT FILING DATE: 1998-07-31
EARLIER APPLICATION NUMBER: 60/061,823
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Korsmeyer, Stanley J. APPLICANT: Schlesinger, Paul H. APPLICANT: Schlesinger, Paul H. TITLE OF INVENTION: Method for Identifying Apoptosis Modulating Compounds FILE REFERENCE: 6029-6052
                                                                                                       1 MDGSGEQPRGGGPTSSEQIM 20
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(without alignments)
83.819 Million cell updates/sec
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Human BAX amino ac Human neuroprotect Human neuroprotect Human neuroprotect Human neuroprotect Human Bax protein. Human Wild-type Ba Human Bax protein A human Bcl-2 asso
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AAG34511		AAG34513	AAM79922	AAM78938	AAY90735	AAU76551	AAB35128	AAB74125	AAB74122	AAY70828	AAW87808	AAW87805	AAY05434	AAR71407	AAY70823	AAY70819	AAY70821	AAY70817	AAY90737	AAB74124	AAW87807	AAY90738	AAY39263	AAY78512	AAW10688	AAU76552	AAB50539	AAB35129	AAB48286	AAB74126	AAB74121	AAY69202	AAY70827	AAW87809
Arabidopsis thalia	S	Arabidopsis thalia		Human protein SEQ	Apoptotic regulati	Murine Bax polypep	Murine Bax. Mus s	Murine bcl-2 assoc	Murine bcl-2 assoc	В	Murine Bcl-2 assoc	Murine Bcl-2 assoc	Mouse BAX protein	Murine Bax protein	Mouse neuroprotect		Mouse neuroprotect	Mouse neuroprotect	Mouse BAX amino ac	N-terminus of Baxg	A Bcl-2 associated	amino	Coding region of c	cated	mega	Human Bax polypept		Human Bax. Homo s	Bax pr	bc1-2			\x alpha p	A human Bcl-2 asso

## ALIGNMENTS

RESULT 1
AAY90736
ID AAY9
XX AAY9
AC AAY9
XX Huma
XX Hom
KW APOH
KW Cell
XX WO2(
XX HOM
COS HOM
XX WO2(
XX HOM
COS HOM
XX WO2(
XX HOM
XX WO3-(
XX HOM
XX UYI
XX UYI
XX UYI
XX UYI
XX WPI
XX APOH
AAY90736
17-AUG-2000 BAX polypeptide lacking an ART domain, that modulate apoptosis which can then Shore GC, 05-OCT-1998; 05-OCT-1999; 13-APR-2000 WO200020446-A2 Homo sapiens. Apoptotic regulation of targeting domain; ART domain; cell death; cancer; cytostatic. Human BAX amino acid sequence 1 to 20 SEQ ID NO:2 AAY90736; AAY90736 standard; peptide; 20 (UYMC-) UNIV MCGILL. 2000-303740/26 Goping S; (first entry) 98US-0166028 99WO-IB01680 Ą useful for identifying agents be used for treating cancer . BAX; apoptosis;

AAW87804

Example 2; Page 52; 53pp; English.

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RESULT 2
AAY70816
ID AAY7
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Best Local
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                                                        The present sequence is a specifically claimed truncated BAX protein tBAX70 which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of first 70 amino acids of human
                                                                                                         Claim
                                                                                                                              Truncated BAX polypeptides useful for preventing for the treatment of nervous system disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        apoptosis. The polypeptides and methods from the present invention are useful for identifying compounds that modulate apoptosis which can then be used for treating cancer. The present sequence represents a human BAX peptide sequence of amino acids 1 to 20, which is used in an
           the full-length BAX alpha. The tBAX protein lacking only tl
                                    domain.
                                               BAX alpha,
                                                                                                                                                                                                                                         22-OCT-1998;
                                                                                                                                                                                                                                                               22-OCT-1999;
                                                                                                                                                                                                                                                                                                             WO200023083-A1.
                                                                                                                                                                                                                                                                                                                                                                       Domain
                                                                                                                                                                                                                                                                                                                                                                                                         Key
                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                apoptosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention describes a pure protein (P1) comprising a BAX polypeptide lacking an apoptotic regulation of targeting (ART) domain. P1 has cytostatic activity and can be used in the modulation of
                                                                                                                                                                                                               (UNIW ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                             Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              neuroprotective truncated BAX protein, tBAX70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       truncated BAX protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     cord injury;
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                                  na, that includes the N-terminal region and a portion of the It lacks the BH1, BH2 and C-terminal transmembrane domains
                                                                                                                                                                                         EM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            anti-apoptotic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                       Page 32; 43pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     treatment; neurodegenerative disease;
d injury; head trauma; stroke.
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                                                                                                                                                                                                                                                                                                                                                                   /note=
59..70
                                                                                                                                                                                                                                                                                                                                  /label= Partial_BH3_domain /note= "BH3 domain in the of amino acids 59-73"
                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                                                                                                                                                                                                               "N-terminal region
                                                                                                        English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cerebroprotective; neuroprotective;
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tBAX70; BAX alpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
treat diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20;
No.
                                                                                                                                                                                                                                                                                                                                              the full-length BAX alpha consists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 21
1.8e-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21;
                                                                                                                                                                                                                                                                                                                                                                                  BAX
                                                                                                                                          apoptosis
                                                                                                                                                                                                                                                                                                                                                                                alpha"
                                                                                                                                                                                                                                                                                                                                                                                                                                                               peripheral nerve injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BCL-2 family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                       the
with neuronal
            activity
                                                                                                                                          of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            neuroactive;
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                                              the
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RESULT 3
AAY70820
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                The present sequence is a specifically claimed truncated BAX protein, tBAX70 mutant (tBAX70M) which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain of human BAX alpha. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal process.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  apoptosis, e.g. neurodegenerative diseases, spinal cord injury, head trauma and stroke.
                                                                                                                                     Truncated BAX polypeptides useful for preventing for the treatment of nervous system disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                         Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     apoptosis; treatment; n
          apoptosis, e.g. neurodegenerative
                                                                                                                 Claim
                                                                                                                                                                                         Johnson
                                                                                                                                                                                                            (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                  22-OCT-1998;
                                                                                                                                                                                                                                                       22-OCT-1999;
                                                                                                                                                                                                                                                                           27-APR-2000
                                                                                                                                                                                                                                                                                               WO200023083-A1.
                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human neuroprotective truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY70820;
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                                                                                                                4; Page 33-34; 43pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cord
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     treatment; neurodegenerative disease; peripheral nerve injury;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                        Easton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A
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                                                                                                                                                                                                                                                                                                                             /note=
60
                                                                                                                                                                                                                                                                                                                                                /label= Partial_BH3_domain
/note= "BH3 domain in the 1
of amino acids 59-73"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BAX
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                                                                                                                                                                                                                                                                                                                                                                                                    /note=
                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein;
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                                                                                                                                                                                                                                                                                                                                        "Wild
                                                                                                                                                                                                                                                                                                                                                                                                    "N-terminal region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cerebroprotective; neuroprotective;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            trauma; stroke.
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                                                                                                                English.
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tBAX70M;
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         diseases,
                                                                                                                                                                                                                                                                                                                    Ser
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                                                                                                                                                                                                                                                                                                                                        is
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BAX alpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DВ
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                                                                                                                                                                                                                                                                                                                                                                      full-length BAX alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peripheral nerve injury,
          peripheral nerve
                                                                                                                                                                                                                                                                                                                                                                                                     BAX alpha"
                                                                                                                                                apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BCL-2 family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                      γd
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                                                                                                                                                of neurons
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neuroactive;
                                                                                                                                                                                                                                                                                                                                                                       consists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mutant;
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Best Local S
Matches 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                           Sequence
                                                                                            The present sequence is a specifically claimed truncated BAX protein tBAX78 which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of first 78 amino acids of human BAX alpha, that includes the W-terminal region and BH3 domain. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                  Claim
                                                                                                                                                                                                                                      Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                            Johnson
                                                                                                                                                                                                                                                                                                                                      22-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                           22-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                27-APR-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human neuroprotective truncated BAX protein, tBAX78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY70818;
                                                                                                                                                                                                                                                                                                                (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              spinal cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; truncated BAX protein; tBAX78; BAX alpha; BCL-2 family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY70818 standard; Protein; 78
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MDGSGEQPRGGGPTSSEQIM
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                                                                                                                                                                                                                                                                        2000-339513/29.
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                                                                                                                                                                                                                 4; Page 33; 43pp; English
                                Similarity 20; Conser
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20; Conser
                                                                                                                                                                                                                                                                                            EM,
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                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             injury;
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                                                                                                                                                                                                                                                                                            Easton
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59..7;3
                                                                                                                                                                                                                                                                                                                                                                                                                          /label= BH3_domain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                         100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                             "N-terminal region
                                           .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              trauma; stroke
                                0;
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                                          Score 20;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 20;
Pred. No.
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                                 Mismatches
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                               . 5.8e-12;
ches 0;
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                                                     DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                               of BAX alpha
                                                     21;
                                                    Length 78;
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                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
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                               0;
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                               Gaps
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RESULT 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   apoptosis; spinal cord
                                                                                                                                                                                                                                                                       transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury,
                                                                                                                                                                                                                                                                                                                                              C-terminal sequence of 8 amino acids not present in BAX alpha. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the
                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is a specifically claimed truncated BAX protein, LBAX78 mutant (LBAX78M) which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain of human BAX alpha, and a novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Truncated BAX polypeptides useful for preventing apoptosis of neurons for the treatment of nervous system disorders \dot{\cdot}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; truncated BAX protein; tBAX78M; BAX alpha; BCL-2 family; mutant; neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury; spinal cord injury; head trauma; stroke.
                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                  spinal cord injury,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAD00125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Johnson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-JUL-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY70822;
                                               MDGSGEQPRGGGPTSSEQIM
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MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; Page 34; 43pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neuroprotective truncated BAX protein tBAX78 mutant
                                                                                                 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EM,
                                                                                                                      Similarity
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                                                                                                 Conservative
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                                                                                                                                                                                                     A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0177315
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note=
                                                                                                                                                                                                                                                       head trauma and stroke.
                                                                                                                         100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Wild type Ser is substituted by Ala"
                                                                                                                         .0%;
20
                                                                                                 0;
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                                                                                                                         Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        not
                                                                                                                         20;
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       is
                                                                                                                              Ģ
                                                                                                                                                   DB
                                                                                              .8e-12;
s 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       substituted by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in
                                                                                                                                                21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BAX alpha'
                                                                                                                                              Length 78;
                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ala"
                                                                                                 0;
                                                                                                 Gaps
                                                                                                 0;
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RESULT

δ

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DЪ
                               Qy
                                                                    Matches
                                                                                      Best
                                                                                                Query Match
                                                                                                                                                                                                                                                                                                 codon, resulting in a truncated protein. However, the domain responsible for its function is still present in the truncated protein. Bax (BCl-2 associated x protein) is a proapoptotic member of the BCl-2 gene family. Bax functions as a primary response gene in the p53-regulated apoptotic pathway. The Bax gene promoter has 4 p53 binding sites and the expression of Bax is upregulated at the transcriptional level by p53, and Bax mRNA and protein expression have been shown to increase following induction of p53. Bax protein can function as a homodimer, or it can heterodimerise with other Bcl-2 gene family members such as the provides a means of controlling cell death via the "rheostat" model. This smodel suggests that the relative amounts of Bcl-2 and Bax determine the susceptibility of a cell to undergo apoptosis. If Bcl-2 is in excess, and provides a means provides predominate and cell death is inhibited. If Bax is a process and participates and the coll boomer and boundaries predominate and cell to inhibited. If Bax is
                                                                                                                                                                   susceptible to apoptosis following exposure to an apoptotic stimulus. Additionally, Bax can function in its monomeric form to accelerate cell death. Use of novel adenoviral vectors containing this Bax gene may augment and complement wild-type p53 gene therapy, which induces a G1 cell cycle arrest and/or apoptosis in malignant cells carrying p53 mutations. In addition, Bax overexpression could provide the apoptotic effect of p53 without the need for p53 itself.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          causing a frameshift which leads to translation of a premature stop codon, resulting in a truncated protein. However, the domain responsible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This sequence represents a human truncated Bax protein. The contains a single base deletion relative to the wild-type ()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New adenovirus vectors, used for killing or inhibiting the growth of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAZ19763.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-551404/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      McDonnell TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W09946371-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human truncated Bax protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY34149;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY34149 standard; Protein; 131 AA
                                                                                                                                                                                                                                                                                      in excess, however, Bax homodimers predominate and the cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-NOV-1999
1 MDGSGEQPRGGGPTSSEQIM
                                                                                    Local
                               MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Roth JA;
                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 148-149; 151pp; English
                                                                                                                                      131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     adenovirus; dimeric; Bcl-2; p53; cancer; gene therapy.
                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Swisher SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0077541
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "Portion of BH3 domain essential for dimerisation"
                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancers
                                                                                 . 0%;
 20
                                                                 0;
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                                                                               Score 20;
Pred. No.
                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bruckheimer
                                                                               9.1e-12;
                                                                                                  DB 20;
                                                                 0;
                                                                                                Length 131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EM,
                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sarkiss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (AAZ19764),
                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  გ
რ
                                                               Gaps
                                                                                                                                                                                                                                                     cell
                                                               0,
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RESULT 7
AAR71406
                                                                                                                                  This sequence represents human Bax protein. Bax is a protein which is CC associated with the human bcl-2 alpha and beta proteins, the sequences CC of which are given in AAR71404-05 respectively. bcl-2 is encoded by a CC proto-oncogene and is capable of inhibiting apoptosis in many CC expression cell systems. bcl-2 is a 26 kD membrane-associated CC cytoplasmic protein and is thought to function by enhancing the survival CC enterties of B and T origins rather than directly promoting proliferation of these cell types. bcl-2 has not been shown to directly promote cell cycle progression nor does it necessarily alter the dose CC reponse to limiting concentrations of IL-3. bcl-2 has been shown to CC form heterodimers with this 21 kD protein, Bax. Overexpressed Bax CC accelerates apoptotic cell death induced by cytokine deprivation in an CC IL-3 dependent cell line, and it also acts to counter the death repressor activity of bcl-2. Therefore, the ratio between bcl-2 and Bax determines CC ell survival or death following an apoptotic stimulus. The invention CC gives a mutant form of bcl-2 in which there is at least one amino acid CC substitution or delection in the BHI or BH2 domains. This makes the CC mutant protein substantially incapable of binding Bax and/or incapable of death repressor activity. Down regulation of bcl-2 is useful in
                                                                               clones in autoimmunity by favouring death effector molecules. regulating bc1-2is beneficial in treatment and diagnosis of i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; bcl-2; alpha; beta; proto-oncogene; hematopoietic cell lin apoptosis; membrane-associated cytoplasmic protein; B cell; T cell proliferation; cell cycle progression; Bax; apoptotic cell death; apoptosis; cytokine; death repressor; BH1; BH2; cancer therapy; hyperplasia; immunodeficiency disease; AIDS; neurodegeneration;
  Sequence
                                                                                                                 of death repressor activity. Down regulation of bcl-2 is useful in cancer therapy, controlling hyperplasias and eliminating self-reactive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-AUG-1993;
25-MAY-1994;
                                                                deficiency diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 3; 133pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Methods for producing and identifying mutant bcl-2 proteins that lack death repressor activity and/or lacks binding to F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAQ97606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W09505750-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR71406;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR71406 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ischaemic cell death.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1995-106605/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93US-0112208
94US-0248819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94WO-US09701
                                                           including AIDS and neurodegenerative and ischaemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               activity and/or lacks binding to Bax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cell line;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T cell;
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Query Match Best Local Similarity

100.

.0%;

Score 20; DB 16; Pred. No. 1.3e-11; ; Mismatches 0;

Length 192; Indels

0;

Gaps

0

Matches

Conservative

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RESULT 8
AAY34150
ID AAY3
XXX AAY3
XXX AAY3
XXX AAY3
XXX AAY3
XXX AAY3
XXX AAY0
DEE Huma
XXX APOF
XXX APOF
XXX APOF
XXX II-
PR I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                      CC This sequence represents human wild-type Bax protein. A naturally CC occurring mutant protein (AAy34149) was also isolated. Bax (Bcl-2 cassociated X protein) is a proapoptotic member of the Bcl-2 gene family. CC associated X protein) is a proapoptotic member of the Bcl-2 gene family. CC Bax functions as a primary response gene in the p53-regulated apoptotic CC pathway. The Bax gene promoter has 4 p53 binding sites and the CC expression of Bax is upregulated at the transcriptional level by p53, and CC Bax mRNA and protein expression have been shown to increase following CC induction of p53. Bax protein can function as a homodimer, or it can CC heterodimerise with other Bcl-2 gene family members such as the CC antiapoptotic protein Bcl-2. Heterodimerisation of Bcl-2 family members CC model suggests that the relative amounts of Bcl-2 and Bax determine the CC susceptibility of a cell to undergo apoptosis. If Bcl-2 is in excess, CC in excess, however, Bax homodimers predominate and cell death is inhibited. If Bax is CC in excess, however, Bax homodimers predominate and the cell becomes CC in excess, however, Bax can function in its monomeric form to accelerate cell CC additionally, Bax can function in its monomeric form to accelerate cell CC audment and complement wild-type p53 gene thereavy which indices a CC audment and complement wild-type p53 gene thereavy which indices a CC audment and complement wild-type p53 gene thereavy which indices a CC audment and complement wild-type p53 gene thereavy which indices a CC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                            Query Match
Best Local Similarity
                            Matches
                                                                                                                                                           augment and complement wild-type p53 gene therapy, which induces a cell cycle arrest and/or apoptosis in malignant cells carrying p53 mutations. In addition, max overexpression could provide the apoptoeffect of p53 without the need for p53 itself.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 149-150; 151pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New adenovirus vectors, used for killing cells and for treating cancers -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         McDonnell TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human wild-type Bax protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY34150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9946371-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Apoptosis; adenovirus; dimeric;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY34150 standard; Protein; 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1999-551404/46
DB; AAZ19764.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Roth JA;
                                                                                                                192
                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Swisher SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0077541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US05359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers 59..101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "Portion of BH3 domain essential for dimerisation"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fang B,
                                          Score 20; DB 20;
Pred. No. 1.3e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A
                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bcl-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bruckheimer EM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               p53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inhibiting the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cancer;
                       0
                                                               Length 192;
                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sarkiss MG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              growth
                       0,
                     Gaps
                                                                                                                                                                                                                          a G1 .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of
                     0;
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AAY05435
ID AAY0
                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Вр
                A human Bcl-2 associated protein designated
                                                                 10-MAR-1999
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RESULT 10
AAW87804
                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                               This sequence represents the human BAX protein.

The invention relates to a bol homology domain 3 (BH3 domain),

The invention relates to a bel homology domain 3 (BH3 domain),

derived from a proapoptotic member of the BCL-2 family. The

BH3 polypeptide can be used in a method for promoting apoptosis in a

target cell, especially where the cell is a cancer cell a virus infected

cell or an autoantibody producing cell. The BH3 polypeptide can be used

in therapeutic compositions for treating disease including cancer, other

lymphoproliferative conditions, arthritis, inflammation, and autoimmune

diseases, which may result from the down regulation of cell death
AAW87804
                                          AAW87804 standard;
                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 21c; 104pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-255058/21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-OCT-1997;
26-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        arthritis; autoimmune disease; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BH3 domain; cell death agonist; bcl homology domain; BCL-2 family; apoptosis promoter; cancer cell; virus infected cell; inflammation; autoantibody producing cell; cancer; lymphoproliferative condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bcl homology domain 3 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Korsmeyer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09916787-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY05435;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY05435 standard; peptide; 192 AA
                                                                                                                                                                                                                                                                                                                                                                                 regulation
                                                                                                                                                                                                                                                                   Local
                                                                                                                                                          ப
                                                                                                                                                                                               1 MDGSGEQPRGGGPTSSEQIM
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                                                                                                                                                        MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BAX protein
                                                                                                                                                                                                                                              20;
                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                       192 AA;
                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97US-0946039
97US-0060133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US19765
                                          Protein; 192
                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                   Score 20; Pred. No.
                                            8
                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                 1.3e-11;
                                                                                                                                                                                                                                                                                        DB 20;
                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                        Length 192;
                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                              Gaps
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(first entry)

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AAW87809
 Вb
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                                                                                                                                                RESULT
                                                                                                                                                                                                    Query Match
Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                              10-NOV-1994;
26-AUG-1993;
25-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                           WPI; 199
N-PSDB;
                                                                                    A human Bcl-2
10-NOV-1994;
               05-JAN-1999
                               US5856171-A
                                                            Human; Bcl-2;
bcl-2-related
                                                                                                                                                                                                                                                      The present sequence represents a human Bcl-2 associated protein designated Bax. The Bax protein is used in a composition which comprises a bcl-2 family member polypeptide, a naturally occurring Bax polypeptide and an antibody that binds to the Bax polypeptide. The composition is used to identify modulators of bcl-2-related function, e.g. substances that inhibit binding of Bax to bcl-2, which would be potentially useful as drugs for modulating
                                              Homo sapiens
                                                                                                    10-MAR-1999
                                                                                                                  AAW87809;
                                                                                                                               AAW87809 standard;
                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                   Example 1; Columns 71-74; 105pp; English.
                                                                                                                                                                                                                                                                                                                                  DNA composition encoding bcl-2 two-hybrid and reporter system identifying modulators of bcl-2 function
                                                                                                                                                                                                                                                                                                                                                                                Korsmeyer
                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; Bcl-2 a
bcl-2-related
                                                                                                                                                                                                                                                                                                                                                                                                (UNIW ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                              10-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US5856171-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
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                                                                                                                                                                     MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                          1999-105119/09
DB; AAV84005.
                                                                     Bc1-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bc1-2
                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                SJ
                                                                                                                                                                                                                                  192
                                                                                                                                                                                                    Conservative
                                                                   associated
                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      associated function;
                                                                                                                                                                                                                                                                                                                                                                                                WASHINGTON.
                                                                                   associated protein designated Bax.
                                                             function;
                                                                                                                                                                                                                                  Ă,
                                                                                                                                                                                                                                                                                                                                                                                                              94US-0337646.
93US-0112208.
94US-0248819.
94US-0337646
                                                                                                                                                                                                                                                                                                                                                                                                                                             94US-0337646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
146..16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers 97..118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note=
                                                                                                                                 Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..168
                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "BH1 domain"
                                                            apoptosis
                                                                   protein; Bax; bcl-2; antibody; modulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "BH2 domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein; Bax; bcl-2; antibody; modulator;
apoptosis.
                                                                                                                                 192
                                                                                                                                                                                                    0;
                                                                                                                                                                                                           Score
Pred.
                                                                                                                                 B
                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                           NO:
                                                                                                                                                                                                          DB 20;
1.3e-11;
                                                                                                                                                                                                    0
                                                                                                                                                                                                                  Length 192;
                                                                                                                                                                                                    Indels
                                                                                                                                                                                                    0,
                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                           for
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RESULT 12
AAY70827
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Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-NOV-1994;
26-AUG-1993;
25-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence represents a human Bcl-2 associated protein designated Bax. The Bax protein is used in a composition which comprises a bcl-2 family member polypeptide, a naturally occurring Bax polypeptide and an antibody that binds to the Bax polypeptide. The composition is used to identify modulators of bcl-2-related function, e.g. substances that inhibit binding of Bax to bcl-2, which would be potentially useful as drugs for modulating
                                                                                                                                                                                                                                                                                         Human; truncated BAX protein; tBAX; BAX alpha; BCL-2 family; head trauma neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury spinal cord injury; stroke; pro-apoptotic; PCD; programmed cell death.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
22-OCT-1999;
                           27-APR-2000
                                                                                                 Domain
                                                                                                                                                                                                                                       Key
                                                                                                                                                                                                                                                                                                                                                                                            31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA composition encoding bcl-2 two-hybrid identifying modulators of bcl-2 function
                                                       WO200023083-A1
                                                                                                                           Domain
                                                                                                                                                       Domain
                                                                                                                                                                                               Domain
                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                 Human
                                                                                                                                                                                                                                                                                                                                                                                                                      AAY70827
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY70827 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 7; Fig 7; 105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1999-105119/09
                                                                                                                                                                                                                                                                                                                                                                 BAX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                               alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94US-0337646.
93US-0112208.
94US-0248819.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA;
99WO-US24747
                                                                                                                           98..118
/label= E
150..165
                                                                                                                                                                                              /label= N-terminal_region 59..73
                                                                                                                                                                                                                                                                                                                                                               protein.
                                                                                               /label=
169..188
                                                                                                                                                                 /label= BH3_domain
/note= "BCL-2 Homo
                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                  'label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein; 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                 188
                                                                                 Transmembrane_domain
                                                                                                            BH2_domain
                                                                                                                                        BH1_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 20; DB 20;
Pred. No. 1.3e-11;
                                                                                                                                                                  Homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                    domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and reporter system
                                                                                                                                                                    ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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0;

22-OCT-1998;

98US-0177315

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RESULT 13
AAY69202
ID AAY69
XX AAY69
AC CAACA
KW CYCOO
KW AAY61
AC COO
KW AAY60
AC COO
KW
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence is a human BAX alpha protein, a pro-apoptotic protein which is a member of BCL-2 family of proteins that are involved in regulation of neuronal programmed cell death. The patent discloses specific truncated proteins derived from BAX alpha which inhibit neuronal apoptosis induced by trophic factor deprivation. The anti-apoptotic truncated BAX (tBAX) proteins include tBAX70, tBAX78 and their mutants. These proteins contain the N-terminal region and at least a portion of the BH3 domain of BAX alpha and lack the BH1, BH2 and C-terminal transmembrane domains. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The tBAX proteins are used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
  Modulating apoptosis in transport of cytochrome
                                                                                                                                                                             (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                              31-JUL-1998;
                                                                                                                                                                                                                                                                                30-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cytochrome C transport; mitochondria; apoptosis; ion selectivity; anti-apoptotic BCL-2 family member; neoplasia; Epstein Barr virus; African swine fever virus; adenovirus; lymphoproliferative condition; cancer; arthritis; Crohn's disease; inflammation; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY69202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY69202 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                WO200006187-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pro-apoptotic peptide; Bax; BH3 domain; channel inducer; transport;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Amino acid sequence of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               reperfusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               reperfusion cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MDGSGEQPRGGGPTSSEQIM 20
                                                                                2000-195193/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDGSGEQPRGGGPTSSEQIM 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                               SJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               192 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                               Schlesinger
                                                                                                                                                                                                                              98US-0127048
                                                                                                                                                                                                                                                                                99WO-US17276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       senescence; neurodegenerative disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide;
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     cells
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human Bax protein.
                                                                                                                               PH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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Pred. No.
                         by modulating
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                            channel
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                            ion
                            selectivity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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AAB74121
ID AAB7
XX
XX
XX
XX
DT 22-+
XXX
Huma
KW Huma
KW autc
KW autc
KW Inmy
O
KW 1-ym
PN US61
PN US6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Вр
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                         10-NOV-1994;
26-AUG-1993;
25-MAY-1994;
                                                                                                                                                 N-PSDB; AAF77704
                                                                                                                                                                                                                            Korsmeyer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lymphoproliferative
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93US-0112208.
94US-0248819.
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also describes inhibitors of apoptosis in cells. The inhibitors of inducers can be used to treat patients, preferably humans with a condition mediated by excessive down-regulation of apoptosis, especially conditions chosen from neoplasias, diseases caused by Epstein Barr virus, African swine fever virus and adenovirus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence represents the Bax protein. A pro-apoptotic peptide can be derived from the BH3 domain. The peptide is an induce of formation of a channel for transport of cytochrome C out of mitochondria. The peptide induces apoptosis in a cell. The peptide changes the ion selectivity of an anti-apoptotic BCL-2 family member from potassium selective to chloride selective. The specification
                                                                                                                                                                                                                                                                                                                                                 lymphoproliferative conditions, cancer, arthritis, Crohn's disease, inflammation and autoimmune disease or a condition mediated by excessive apoptosis, especially immunodeficiency diseases, senescence,
                                                                                                                                                                                                                                                                           neurodegenerative disease, ischemic and reperfusion cell infertility and wounds. The methods can also be used to i
                                1.3e-11;
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Gaps
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Human; Bax; cytostatic; immunosuppressive; immunostimulant; inference apoptosis modulator; bcl-2 associated x protein; cancer therapy; autoimmunity; immunodeficiency; reperfusion injury; stroke; aging myocardial infarction; traumatic brain injury; ischaemia; neurodegenerative diseases; hepatitis; transplant rejection; toxically incomplete in the control of the con infection; rapy; AIDS;

Modulating apoptosis of a cell, useful in maintaining homeostasis adult tissues, or treating proliferative or autoimmune diseases, comprises administering a bcl-2 polypeptide that interacts with a bcl-2 associated X protein 1 n 21 Š

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RESULT 15
AAB74126
ID AAB74
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26-AUG-1993;
25-MAY-1994;
The present invention relates to a method of modulating apoptosis of a cell. The method comprises administrating to the cell an agent, comprising a BH1 domain or BH2 domain, capable of modulating formation at least one complex selected from bcl-2:bcl-2 complexes, bcl-XL:bcl-XL complexes, bcl-2 associated X protein (Bax):Bax complexes, bcl-2:Bax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; Bax; cytostatic; immunosuppressive; immunostimulant; infection apoptosis modulator; bcl-2 associated X protein; cancer therapy; AIDS autoimmunity; immunodeficiency; reperfusion injury; stroke; aging; myocardial infarction; traumatic brain injury; ischaemia; neurodegenerative diseases; hepatitis; transplant rejection; toxemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complexes, bcl-2 associated X protein (Bax):Bax complexes, bcl-2:Bax complexes or bcl-XI:Bax complexes. Modulating apoptosis is especially useful in cancer therapy, and treating autoimmunity, immunodeficiency diseases (e.g. AIDS), reperfusion injury, myocardial infarction, stroke traumatic brain injury, neurodegenerative diseases, aging, ischaemia, toxemia, infection, hepatitis, transplant rejection, and lymphoproliferative diseases. The present sequence is human Bax, which was used in the method of the present invention.
                                                                                                                                                                                                                                                          Modulating apoptosis of a cell, useful in maintaining homeostasis adult tissues, or treating proliferative or autoimmune diseases, comprises administering a bcl-2 polypeptide that interacts with a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cell. The method comprises administrating to the cell an agent, comprising a BH1 domain or BH2 domain, capable of modulating formation cat least one complex selected from bcl-2:bcl-2 complexes, bcl-XL:bcl-XL:complexes, bcl-2 associated X protein (Bax) Bax ormalouse
                                                                                                                                                                              Example
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                                                                                                                             Sequence
MDGSGEQPRGGGPTSSEQIM
                  MDGSGEQPRGGGPTSSEQIM
                                                              Similarity 20; Conserv
                                                                                                                             192 AA;
                                                                Conservative
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Pred. No.
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                                                                               1.3e-11;
                                                                                               DB 22;
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Search completed: January 7, 2003, 12:38:30 Job time: 31.7949 secs

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US-08-856-034-8
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Best Local Similarity
Matches 14; Conserv
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Best Local Similarity
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                                                                                                                                                                                                          TELEFAX: 314-727-6092 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
ADDRESSEE: Howell & Haferkamp, L.C.
STREET: 7733 Forsyth Blvd., Suite 1400
                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: KORSMEYER, Stanley J. TITLE OF INVENTION: CELL DEATH REGULATORS
                                                                                                                           MOLECULE TYPE:
                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 97
TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, Donald R.
                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: 314-727-5188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
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                                                                                                                FEATURE:
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                                                                                  NAME/KEY: Protein LOCATION: 1.192
                                                                                                                                                   STRANDEDNESS:
                                                                      OTHER INFORMATION:
                                                                                                                                           TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
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OTHER INFORMATION:
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STRANDEDNESS: sir
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                                                                                                                                                                                                                                                                             REGISTRATION NUMBER:
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                  88.5%;
73.7%;
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  Score 69; DB : Pred. No. 3.2e 0; Mismatches
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Pred. No.
                                                                     "Murine BAX polypeptide"
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3.2e-05;
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                             DB 2;
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.2e-05;
                            Length 192;
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RESULT 13
US-08-927-326-3
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US-09-127-048-6
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CURRENT FILING DATE: 1998-07-31
EARLIER APPLICATION NUMBER: 60/061,823
EARLIER FILING DATE: 1997-10-14
NUMBER OF SED ID NOS: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Korsmeyer, Stanley J.
APPLICANT: Schlesinger, Paul H.
TITLE OF INVENTION: Method for Identifying Apoptosis Modulating Compounds
FILE REFERENCE: 6029-6052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Ver. 2.0
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                                                                                                                                                                                    CLASSIFICATION:
PRIOR APPLICATION UDATA:
APPLICATION NUMBER: US 08/337,646
FILING DATE: 10-NOV-1994
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
                                                     FILING DATE: 26-AUG-1993
ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
                                                                                                                              FILING DATE: 25-MAY-1994
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
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CTTY: Palo Alto
                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                      SOFTWARE:
                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                            APPLICATION NUMBER:
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/ENTION: CELL DEATH REGULATORS
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                                                                                           UMBER: US 08/112,208
26-AUG-1993
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73.7%;
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                   15726A-000620
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Pred. No. 3.2e-05;
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RESULT 14
US-08-927-326-8
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US-08-927-326-8
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                                                                                                                                                                     APPLICATION NUMBER: US 08/248,819
FILING DATE: 25-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/112,208
FILING DATE: 26-AUG-1993
ATTORNEY/ACENT INFORMATION:
NAME: Smith, William M.
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 15726A-000
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: (415) 326-2400
TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acids
                                                                                                    TELEFAX: (415) 326-242
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION DATA:
PRIOR APPLICATION NUMBER: US 08/337,646
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                  MOLECULE TYPE:
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ADDRESSEE: Townsend and Townsend Khourie and
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LOCATION: 1.192
OTHER INFORMATION:
OTHER INFORMATION:
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                                 STRANDEDNESS:
TOPOLOGY: lir
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CITY: Palo Alto
STATE: | California
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STRANDEDNESS: single
                                                                                  LENGTH:
                                                                                                                                                          TELEPHONE:
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'ENTION: CELL DEATH REGULATORS
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415) 326-2422
              protein
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Pred. No. 3.2e-05;
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; NAME/KEY: VARIANT; LOCATION: (6)...(10); COTHER INFORMATION: Xaa at 6 can be E or D; OTHER INFORMATION: Xaa at 8 can be L or P; OTHER INFORMATION: Xaa at 10 can be S or G; US-09-166-028-1
Search completed: January Job time: 12.2051 secs
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US-09-166-028-1
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                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/166,028
CURRENT FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/09166028 Patent No. 6245885
GENERAL INFORMATION:
APPLICANT: Gordon C. Shore et al.
                                                                                                          Query Match
Best Local Similarity
Matches 19; Conserv
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Gordon C. Shore et al.
TITLE OF INVENTION: BAX MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REACENTS AND METHODS
FILE REFERENCE: 50013/011001
                                                                                                                                                                                                                              FEATURE:
OTHER INFORMATION: Synthetic based on cons
OTHER INFORMATION: sapiens, Mus musculus,
                                                                                                                                                                                                                                                                                                       LENGTH: 19
TYPE: PRT
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Pred. No. 3.2e-05;
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APPLICANT: Carter, Darrick

APPLICANT: Zhu, Shirley

APPLICANT: Arimilli, Subhashini

APPLICANT: Wang, Aijun

APPLICANT: Wang, Aijun

APPLICANT: Corixa Corporation

TITLE OF INVENTION: Immune Medators and Related Methods

FILE REFERENCE: 014058-005670US

CURRENT APPLICATION NUMBER: US/09/815,837

CURRENT APPLICATION NUMBER: US 60/191,274

PRIOR APPLICATION NUMBER: US 60/191,274

PRIOR FILING DATE: 2000-03-22

PRIOR APPLICATION NUMBER: US 60/204,249

PRIOR FILING DATE: 2000-05-15

PRIOR FILING DATE: 2000-05-15
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US-09-815-837-68
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                                                                                                                                                                                                                                         Sequence 68, Application US/09815837 Patent No. US20020082411A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/264,003
PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 129
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 69
LENGTH: 676
APPLICANT: Wang, Aijun
APPLICANT: Corixa Corporation
TITLE OF INVENTION: Immune Medators and Related Methods
FILE REFERENCE: 014058-005670US
CURRENT APPLICATION NUMBER: US/09/815,837
CURRENT FILING DATE: 2001-03-22
PRIOR APPLICATION NUMBER: US 60/191,274
PRIOR FILING DATE: 2000-03-22
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Best Local :
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Matches 8; Conserv
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APPLICANT: Zhu, Shirley
APPLICANT: Arimilli, Subhashini
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Pred. No.
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Search completed: January 7, Job time: 8.30769 secs
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                                                                                                                                             Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/204,249
PRIOR FILING DATE: 2000-05-15
PRIOR APPLICATION NUMBER: US 60/264,003
PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 129
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                         OTHER INFORMATION: Description of Artificial Sequence:IAs MBP 1-14 OTHER INFORMATION: CH1.H.CH2.CH3 recombinant MHC class II-peptide-Ig OTHER INFORMATION: fusion complex 19-415-437-60
                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                          LENGTH: 678
TYPE: PRT
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1: /cgn2_6/ptodata/1,
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3: /cgn2_6/ptodata/1,
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US-08-337-646A-8
US-08-856-531-3
US-08-856-531-3
US-08-856-034-8
US-09-127-048-6
US-09-127-048-6
US-09-126-028-5
US-09-166-028-5
US-09-166-028-5
US-09-166-028-5
US-09-166-028-5
US-08-112-208C-2
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US-08-248-819A-9
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US-08-112-208C-3
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SEQ ID NO 4
FENGTH: 20
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Best Local
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CITY: Pa
STATE: C
COUNTRY:
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                                                                                                                                                                 Palo Alto
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Sequence 16, Ap	Sequence 16, App	Sequence 16, App	Sequence 16, App		Sequence 2, Appl	Sequence 1, Appl	Sequence 21, Appl	Sequence 21, App	Sequence 9, Appl	Sequence 9, Appl	Sequence 25, App	Sequence 9, Appl	Sequence 2, Appli	Sequence 7, Appl	Sequence 13, App.	Sequence 9, Appl	Sequence 2, Appl	

# ALIGNMENTS

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; ORGANISM: Mus musculus US-09-166-028-4
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APPLICANT: GORDON C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOS
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
FILE REFERENCE: 50013/011001
                                                                                                                                                                                                                                                                                                                      Sequence 3, Application US/08112208C Patent No. 5691179
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Patent No. 6245885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/166,028
CURRENT FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                              APPLICANT: KORSMEYER,
TITLE OF INVENTION: CE
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
APPLICATION NUMBER:
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RESULT 3
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Query Match
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                                                                                                                                                                                                                                                             TELEPHONE: (415) 326-2400
TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/112,208C
FILING DATE: 26-AUG-1993
CLASSIFICATION: 536
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ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
NAME: Smith, William M
NAME: TECHNOLOGY
N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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NUMBER OF SEQUENCES:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
                                                                                                        MOLECULE TYPE:
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                                                                                                                                       TOPOLOGY:
                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER:
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Bax."
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Pred. No. 3.
Score 69;
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3.2e-05;
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US-08-248-819A-3
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Sequence 8, Application US/08248819A
Patent NO. 5700638
GENERAL INFORMATION:
APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 60
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TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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NAME: Smith, William M
REGISTRATION NUMBER: 30,
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APPLICATION NUMBER: US 08/112,208
FILING DATE: 26-AUG-1993
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                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
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OTHER INFORMATION:
OTHER INFORMATION:
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CLASSIFICATION:
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CITY: Palo Alto
STATE: California
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STRANDEDNESS: sir
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25-NAY-1994
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Bax."
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Pred. No. 3.2e-05;
Pred. No. 3.2e-05;
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CORRESPONDENCE ADDRESS:

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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 1
CLASSIFICATION: 435
PATOR APPLICATION NUMBER: US 08/248,819
FILING DATE: 25-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/112,208
                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                        APPLICANT: KORSMEYER, Stanley J.
TITLE OF INVENTION: CELL DEATH REGULATORS
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS:
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FILING DATE: 26-AUG-1993
ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 15726A-00
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PRIOR APPLICATION DATA:
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STRANDEDNESS: sin
TOPOLOGY: linear
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STATE: California
                                                                                              APPLICATION NUMBER: FILING DATE: 10-NOV
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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73.7%;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 8, Application US/08337646A Patent No. 5856171
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                              TELEFAX: (415) 326-24: INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (415) 326-2422 INFORMATION FOR SEQ ID NO: 3:
                                                                                                          REGISTRATION NUMBER: 30,223
REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
                                                                                                                                                         APPLICATION NUMBER: US 08
FILING DATE: 26-AUG-1993
ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 15
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
                           SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acid
                                                                                                                                                                                                                               FILING DATE: 25-MAY-1994 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/248,819
                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend Khourie and Crew
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 26-AUG-1993 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                 FILING DATE: 10 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 379 Lytton Avenue CITY: Palo Alto STATE: California
                                                                                            TELEPHONE:
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STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
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                           192 amino acids
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VENTION: CELL DEATH REGULATORS
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                                                                                               (415)
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10-NOV-1994
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                                                                            5) 326-2400
326-2422
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73 7%;
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Bax."
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Pred. No.
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3.2e-05;
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RESULT 9
US-08-856-531-8
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; LOCATION: 1..192
; OTHER INFORMATION: /note= "Murine BAX polypeptide"
US-08-856-531-3
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US-08-856-531-3
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                                              Sequence 8, Application US/08856531 Patent No. 5942490
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Patent No. 5942490
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Best Local Similarity
               GENERAL INFORMATION:
APPLICANT: KORSME
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INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: CELL DEATH REGULATOR NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS;
ADDRESSEE: Howell & Haferkamp, L.C.
STREET: 7733 Forsyth Blvd., Suite 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Relicurrent APPLICATION DATA:
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APPLICANT: KORSMEYER, TITLE OF INVENTION: CE
                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, Donald R.
REGISTRATION NUMBER: 35,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
CLASSIFICATION:
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                                                                                                                                          MDGSGEQLGSGGPTSSEQI 19
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VENTION: CELL DEATH REGULATORS
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73.7%;
 CELL DEATH REGULATORS
                 Stanley J.
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Pred. No. 3.2e-05;
"'-matches 5;
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Pred. No. 3.2e-05;
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US-08-856-034-3
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                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, Donald R.
REGISTRATION NUMBER: 35,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
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ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: Howell & Haferkamp, L.C.
STREET: 7733 Forsyth Blvd., Suite 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
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CITY: St.
                                                                                                                                                                                                                               STREET: 7733 FOR CITY: St. Louis STATE: MO
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OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                 FILING DATE:
CLASSIFICATION:
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TELEFAX: 314-727-6092
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                                                                                                                                                                                                     ZIP: 63105
                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                   ADDRESSEE: Howell & Haferkamp, L.C. STREET: 7733 Forsyth Blvd., Suite 1400
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                                                                                  APPLICATION NUMBER:
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73.7%;
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                                                                                    US/08/856,034
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Pred. No. 3.2e-05;
"'' matches 5;
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                                                                                                                     #1.30
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APPLICANT: Compugen LTD
TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676A
CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
SOFTWARE: Patentin version 3.2
SEQ ID NO 82068
LENGTH: 1054
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
US-09-724-676-82069
: Sequence 82069, Application US/09724676
: GENERAL INFORMATION:
: APPLICANT: Compugen LTD
: TITLE OF INVENTION: Variants of alternative splicing
: FILE REFERENCE: 129181.4 Compugen
: FILE REFERENCE: 129181.4 Compugen
                                                                                                                                                                                                                                           RESULT 15
US-09-724-676A-82069
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Best Local Similarity
%** 6; Conserva
; ORGANISM: Homo sapiens US-09-724-676A-82069
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US-09-724-676A-82068
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                                                                Sequence 82069, Application US/09724676A
GENERAL INFORMATION:
APPLICANT: Compugen LTD
TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676A
CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
SOFTWARE: Patentin version 3.2
SEQ ID NO 82069
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Best Local S
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CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
                               LENGTH: 1149
TYPE: PRT
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6; Conservative
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Query Match
Best Local Similarity
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Best Local Similarity
"hes 7; Conserve
 RESULT 10
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                                                                                                                                                                             ; TYPE: PRT ; ORGANISM: Enterococcus faecalis US-09-134-000C-6041
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CURRENT FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 256
SOFTWARE: Patentin version 3.1
SEQ ID NO 126
                                                                                                                                                                                                                          SEQ ID NO 6041
LENGTH: 748
                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 6041, Application US/09134000C GENERAL INFORMATION:
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Matches 7; Conservative
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                                                                                                                                                                                                                                                         FILE REFERENCE: 032796-032
CURRENT APPLICATION NUMBER: US/09/134,000C
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/055,778
PRIOR APPLICATION STATE OF SECULOR STATE OF SECULORS: 1997-08-15
NUMBER OF SECULO NOS: 6812
SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: American Home Product Inc.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR DIAGNOSING AND TREATING MAJOR DEPRES
TITLE OF INVENTION: DISORDER
                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
TITLE OF INVENTION: ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILE REFERENCE: AM1012501
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                                               41 GGPTSSHQ 48
                                                                                11 GGPTSSEQ 18
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Pred. No. 1.3e+02;
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Pred. No. 1
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Pred. No. 1.2e+02;
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; TYPE: PRT; ORGANISM: Homo sapiens US-09-724-676A-82011
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                                                                    ; ORGANISM: Homo sapiens US-09-724-676-82068
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US-09-724-676-82068
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US-09-724-676A-82011
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                                                                                                                           APPLICANT: Compugen LTD
TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676
CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
SOFTWARE: PatentIn version 3.2
SEQ ID NO 82068
FILE OF SEQ ID NO 82068
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SEQUENCE INFORMATION:

APPLICANT: Compugen LTD

TITLE OF INVENTION: Variants of alternative splicing

FILE REFERENCE: 129181.4 Compugen

CURRENT APPLICATION NUMBER: US/09/724,676A

CURRENT FILING DATE: 2000-11-28

NUMBER OF SEQ ID NOS: 97222

SOFTWARE: PatentIn version 3.2
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LENGTH: 299
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LENGTH: 299
 Matches
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Best Local Similarity
Matches 6; Conserv
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CURRENT FILLING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
SOFTWARE: Patentin version 3.2
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                                                                                                      LENGTH: 1054
TYPE: PRT
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Local Similarity 37.1 nes 6; Conservative
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37.5%;
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                 Score 36; DB 5;
Pred. No. 2.8e+02;
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Pred. No. 87;
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Pred. No.
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3 GSGXXXXXGGPTSSEQ 18

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OTHER INFORMATION: Xaa equals any of the US-10-264-237-2133
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US-10-264-237-2133
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US-10-196-793A-46
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APPLICANT: Birse et al
TITLE OF INVENTION: Nucleic Acids, Proteins,
FILE REFERENCE: PA131P1
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GENERAL INFORMATION:
APPLICART: ROSENBLUM, MARTIN G.
APPLICANT: LIU, YUYING
                                                                                                                                                                                                                 SOFTWARE: PatentIn Ver. 3.1 SEQ ID NO 2133
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PRIOR TILING DATE: 2001-05-18
PRIOR APPLICATION NUMBER: US 60/205,515
PRIOR FILING DATE: 2000-05-19
                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 2876
                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/264,237 CURRENT FILING DATE: 2002-10-04
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PRIOR FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 61
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PRIOR FILING DATE: 2002-02-28
PRIOR APPLICATION NUMBER: 60/332,886
PRIOR FILING DATE: 2001-11-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/196,793A
CURRENT FILING DATE: 2002-07-17
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TITLE OF INVENTION: THERAPEUTIC AGENTS COMPRISING PRO-APOPTOTIC PROTEINS
FILE REFERENCE: CLFR:012US
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TYPE: PRT
ORGANISM: Homo sapiens
                                                                                          NAME/KEY: MISC_FEATURE LOCATION: (82)
OTHER INFORMATION: Xaa
                                                                                                                                               TYPE: PRT ORGANISM: Homo sapiens FEATURE:
                                             NAME/KEY: MISC_FEATURE LOCATION: (84)
                                                                            FEATURE:
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72.2%;
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Pred. No. 0.00015;
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US-09-724-676-64483
; Sequence 64483, Application US/09724676
; GENERAL INFORMATION:
APPLICANT: COMPUGEN LTD
TITLE OF INVENTION: Variants of alternative spl
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676
; CURRENT FILIG DATE: 2000-11-28
; NUMBER OF SEQ ID NOS: 9722
; SOFTWARE: PatentIn version 3.2
                                                                                                                                                                                                                                                                                                                                                                                          Sequence 64483, Application US/09724676A
GENERAL INFORMATION:
APPLICANT: Compugen LTD
TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676A
CURRENT FILING DATE: 2000-11-28
NUMBER OF SEO ID NOS: 97222
SOFTWARE: PatentIn version 3.2
LENGTH: 639
                                                                                                             US-60-423-552-126 Sequence 126, Application US/60423552 GENERAL INFORMATION:
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US-09-724-676A-64483
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LENGTH: 639
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CURRENT APPLICATION NUMBER: US/60/423,552
CURRENT FILING DATE: 2002-11-05
NUMBER OF SEQ ID NOS: 256
                                            APPLICANT: American Home Product
TITLE OF INVENTION: COMPOSITIONS
TITLE OF INVENTION: DISORDER
FILE REFERENCE: AM101250L
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Pred. No. 1
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# ALIGNMENTS

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; APPLICANT: Reed, John C. APPLICANT: Guo, Bin
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APPLICANT: The Burnham Institute
APPLICANT: Reed, John C
APPLICANT: Guo, Bin
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               TITLE OF INVENTION: Methods for Identifying Modulators
TITLE OF INVENTION: Apoptosis
FILE REFERENCE: P-LJ 5535
CURRENT APPLICATION NUMBER: US/10/306,878
CURRENT FILING DATE: 2002-11-27
PRIOR APPLICATION NUMBER: US 60/334,149
PRIOR FILING DATE: 2001-11-28
NUMBER OF SED ID NOS 28
NUMBER OF SED ID NOS 28
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Best Local Similarity 73.7%;
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PRIOR FILING DATE: 2001-11-28
NUMBER OF SEQ ID NOS: 28
SOFTWARE: FastSEQ for Windows Version 4.0
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CURRENT FILING DATE: 2002-11-27
SOFTWARE: FastSEQ for Windows Version 4.0
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	ociated protein : te names: BAX; p: : Homo sapiens (() 9-Mar-1996 #seque on: 138921 26, 592-594, 199; Mapping of the hi ce number: 138921 preliminary; nuc e type: mRNA esterences: EMBL:1 s: BBBBAX eferences: GDB:2; ition: 19q13.3-1; mily: bcl transfc	tch 88. al Similarity 73. 14; Conservative MDGSGXXXXXGGPTSSEQI	de protein lees: BAX; musculus 1994 #seq 7538 Milliman 9, 1993 heterodim heterodim ber: A475 7538 7538 92 <0LT> ces: GB:L	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
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Score 67: DB 3:	lice form ell death on 09-MarRR. and to chro 31797; PMI 31797; PMI sequence n sequence n; :9841237;	Score 69; DB 2; Pred. No. 1e-05; O; Mismatches	se ed cell death membrane led cell death membrane louse) vision 03-May-1994 #te Korsmeyer, S.J. Korsmeyer, S.J. n vivo with a conserve: 93364978; PMID: 835879	D85072 E86482 T33985 T339829 G501763 S50832 E84923 A112416 A71657 A70657 A70657 A70657 A70657 B70657
Length 143:	- human membrane protein x delta 1996 #text_change 17-Nov-2000 1998 19913.3-913.4 and isolation of a D:7607685 ot shown; translation not shown PIDN:AAC50142.1; PID:9841238	Length 192; 5; Indels 0; Gaps 0;	orane protein x   #text_change 17-Nov-2000  served homolog, Bax, that accelerate	hypothetical prote protein F5J5.5 [im regulator protein hypothetical prote amino-acid permeas atrophin-1 - human atrophin-1 - human hypothetical prote rig-1 protein - mo hypothetical prote hypothetical prote chitinase (EC 3.2. hypothetical prote forkhead transcrip mercury(II) reduct pyridine nucleotid

Query Match

85.9%;

Score 67;

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A;Molecule type: mRNA
A;Residues; 1-192 COLT>
A;Cross-references: GB:L22473; NID:g388165; PIDN:AAAO
A;Cross-references: GB:L22473; NID:g388165; PIDN:AAAO
A;Cross-references: GB:L22473; NID:g388165; PIDN:AAAO
A;Note: the amino end of the mature protein is blocke
C;Genetics:
A;Gene: GDB:BAX
A;Cross-references: GDB:228082; OMIM:600040
A;Map position: 19q13.3-19q13.4
C;Superfamily; bol transforming protein
C;Keywords: alternative splicing; blocked amino end;
F;172-191/Domain: transmembrane #status predicted <TN</pre>
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A47538
bcl-2-associated protein x, alpha splice form - human
N;Alternate names: BAX; programmed cell death membrane protein x alpha
C;Species: Homo sapiens (man)
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 17-Nov-2000
C;Accession: A47538
R;Oltval, Z.N.; Milliman, C.L.; Korsmeyer, S.J.
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C;Superfamily: bcl transforming protein
C;Keywords: transmembrane protein
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C:Date: 09-Jun-2000 #sequence_revision 09-Jun-2000 #text_change
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A; Residues: 1-179 <SCH>
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                                                                                                                                                                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                           Matches
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                                                                                                                                      MDGSGEQPRGGGPTSSEQI 19
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Similarity 73.7%;
14; Conservative
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protein
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73.7%;
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splice
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                                                                                                                                                                                                                                           Pred. No. 2.5
0; Mismatches
                                                                                                                                                                                                                                                                                               Score
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                                                                                                                                                                                                                                                                                          67;
  torm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIDN:AAA03619.1; is blocked
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l-2 family,
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2.3e-05;
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∠.5e-05;
5;
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                                                                                                                                                                                                                                                                                                                                                 <TMM1>
                                                                                                                                                                                                                                                                                          Length 192
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                                                                          C;Species: Saccharomyces cerevisiae
C;Date: 05-May-1995 #sequence_revision 05-Sep-1996 #text_change
C;Accession: S59162; S51886
R;Vandenbol, M; Durand, P; Portetelle, D; Hilger, F.
Yeast 11, 1069-1075, 1995
                                                                                                                                                                                                                                         RESULT
S51886
                                                 A; Title:
                                                                                                                                                                                                                                                                                                                                                 В
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A; Residues: 1-218 <OLT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Introns:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Gene: hsp70.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Gene: GDB:BAX
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Best Local
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                           delta element
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Best Local
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                                                 Sequence analysis
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S59156;
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of a 44 kb DNA MUID:96076631;

fragment of yeast

chromosome XV including

PMID:7502582

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Cell 74, 609-619, 1993
Cell 74, 609-619, 1993
A;Title: Bcl-2 heterodimerizes in vivo with a conserved number: A47538; MUID:93364978; PMID:8358790
                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Title: Cloning and expression of a heat-inducible hsp70 A; Reference number: S27004; MUID:93130891; PMID:1483453 A; Accession: S27004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \mbox{dnaK-type} molecular chaperone hsp70.1 - Hydra magnipapillata N, Alternate names: heat shock protein 70.1
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C;Keywords: alternative splicing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: GDB:228082;
A;Map position: 19q13.3-19q13.4
C;Superfamily: bcl transforming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N;Alternate names: BAX; programmed cell death membrane C;Species: Homo sapiens (man) C;Date: 03-May-1994 #sequence_revision 03-May-1994 #tex C;Accession: B47538
                                                                                                                                                                                                                                                                                                          A; Description: involved in protein folding and assembling/disassembling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R; Gellner, K.; Praetzel, G.; Bosch,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Date: 07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Hydra magnipapillata
A;Variety: strain 105
                                  hypothetical protein HRX185I.1 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Oltvai, Z.N.; Milliman, C.L.;
                                                                                                                               636 MPGSGSKASSGGPTIEE
                                                                                                                                                               1 MDGSGXXXXXGGPTSSE 17
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                                                                                                                                                                                                                                                                                       heat shock protein 70
                                                                                                                                                                                                                                                                      heat shock; molecular chaperone;
                                                                                                                                                                                                 Conservative
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52.9%;
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73.7%;
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g; blocked amino end; cytosol; heterodimer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OMIM: 600040
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                                  yeast (Saccharomyces cerevisiae)
                                                                                                                                                                                                                                                                                                                                                                                                 NID:g159267;
                                                                                                                                                                                                 Score 46; DB Pred. No. 1.1; 0; Mismatches
                                                                                                                                                                                                   0;
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Pred. No. 2.9e-05,
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20-oct-2000
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Yeast 11, 1069-1075, 1995

A:Title: Sequence analysis of a 44 kb DNA fragment of yeast chromosome XV including the a delta element.

A:Reference number: S59156; MUID:96076631; PMID:7502582

A:Accession: S59161

A:Status: nucleic acid sequence not shown; translation not shown

A:Molecule type: DNA

A:Residues: 1-492 <VAW>
A:Residues: 1-492 <VAW>
A:Residues: 1-492 <VAW>
A:Rote: the nucleotide sequence was submitted to the EMBL Data Library, January 1995

R:Durand, P.; Hilger, F.; Portetelle, D.; Vandenbol, M.

submitted to the Protein Sequence Database, July 1996

A:Reference number: S66791

A:Residues: 1-492 <DUR>
A:Residues: 1-492 <DUR>
A:Residues: 1-492 <DUR>
A:Experimental source: Strain S288C

C:Genetics:
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A;Status: nucleic acid sequence not shown; translation not shown; conceptual tra
A;Molecule type: DNA
A;Residues: 1-487 <VANW>
A;Cross-references: EMBL:Z48149; NID:g663234; PIDN:CAA88149.1; PID:g663241
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, January
C;Comment: There is no evidence that this sequence is expressed.
                                                                   δÃ
                                                                                                                                                                                                            C:Keywords: transmembrane protei
F:238-254/Domain: transmembrane
F:335-351/Domain: transmembrane
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                        Db
                                                                                                                                                                                                                                                                               A; Map position: 15L C; Superfamily: Saccharomyces probable membrane protein YOL112w
                                                                                                                                                                                                                                                                                                                                     A;Gene: SGD:MSB4
A;Cross-references:
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A; Introns: 472/2
C; Keywords: pseudogene
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A; Residues: 1-492 <VAN>
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                                                                        MDGSGXXXXXGGPTSSEQ 18
                           MNGNGSTDQISGPASGEE 327
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                                                                                                                                                                                                                                                                                                                                   SGD:S0005472; MIPS:YOL112w
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3; Mismatches
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                                                              A; Reference number: A8
A; Accession: F86743
A; Status: preliminary
                                                                                                                                                                                                         hypothetical protein dacB [imported] - Lactococcus lactis subsp. lactis (strain IL140 C;Species: Lactococcus lactis subsp. lactis C;Date: 23-Mar-2001 #sequence_revision 23-Mar-2001 #text_change 03-Aug-2001 C;Accession: F86743
                                                                                                               A; Title: The complete genome sequence of the lactic acid A; Reference number: A86625; MUID:21235186; PMID:11337471
                   A; Molecule type: DNA
A; Residues: 1-248 <STO>
                                                                                                                                                               R;Bolotin, A.; Wincker, P.; Mauger, S.; Jaillon, Genome Res. 11, 731-753, 2001
A; Cross-references:
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C;Species: Saccharomyces cerevisiae
C;Date: 05-May-1995 #sequence_revision 05-Sep-1996 #text_change 20-Oct-2000
C;Accession: S59163; S51887
R;Vandenbol, M.; Durand, P.; Portetelle, D.; Hilger, F.
Yeast 11, 1069-1075, 1995
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A; Residues: 1-105 <KEL>
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Gene 98, 53-60, 1991
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C;Accession: PW0018
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C;Genetics:
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S51887
                                                                                                                                 A;Cross-references: GB:M55521
A;Note: the authors translated
                                                                                                                                                                                                                                                                                                                      hypothetical protein 105 - Micromonospora sp. (fragment) C; Species: Micromonospora sp.
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A; Residues: 1-528 < V
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                                                               Similarity 61.
8; Conservative
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GB:AE005176; PID:g12723887; PIDN:AAK05048.1; GSPDB:GN00146

O.; Malarme, K.;

Weissenbach,

D

bacterium Lactococcus

lactis

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A; Experimental C; Genetics: A; Gene: dacB
                                                                                                                                                                                                                                                                                                                        benzaldehyde dehydrogenase (NAD) (EC 1.2.1.28) [val
C;Species: Pseudomonas putida
C;Date: 17-Mar-2000 #seguence_revision 17-Mar-2000
C;Accession: T47107; $13388
                                               R;Chalmers, R.M.; Keen, J.N.; Fewson, C.A.
Biochem. J. 273, 99-107, 1991
A;Title: Comparison of benzyl alcohol dehydrogenases and benzaldehyde dehydrogenases
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A;Residues: 1-334 <OLE>
A;Cross references: GB.M63639; NID:g173424; PIDN:AAA35322.1;
R;Lyne, M.; Rajandream, M.A.; Barrell, B.G.; Rieger, M.
submitted to the EMBL Data Library, November 1998
A;Reference number: Z21889
A;Accession: T40663
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                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-487 <II
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A; Accession: T47107
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C; Keywords: DNA
A; Reference number: S13298; A; Accession: S13388
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A; Cross-references: EMBL:U15151; NID:g555994; PIDN:AAA66218.1;
                                                                                                                                                                                  A; Status: preliminary; translated from GB/EMBL/DDB.
                                                                                                                                                                                                                                                                                          R; Inoue, J.; Shaw, J.P.; Rekik, M.; Harayama, J. Bacteriol. 177, 1196-1201, 1995
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T47107
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A; Residues: 1-334 <LYN>
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                                        uene pathway in Pseudomonas putida
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                                                                                                                                                                                                                                                                                                                                                                                             dehydrogenase (NAD) (EC 1.2.1.28) [validated] - Pseudomonas putida
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Similarity 43.8%;
7; Conservative
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Matches
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R;Murphy, L.; Harris, D.; Barrell, D.; Submitted to the EMBL Data Library, April 1999 submitted to the EMBL Data Library, April 1999 A;Description: Sequencing the distal X chromosome of A:Reference number: Z17668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nypothetical protein 22E5.8 - fruit fly (Drosophila melanogaster) C:Species: Drosophila melanogaster C:Date: 13-Aug-1999 #sequence_revision 13-Aug-1999 #text_change 1:C:Accession: T13741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Description: EC 1.2.1.28 [validated, C;Superfamily: aldehyde dehydrogenase C;Keywords: oxidoreductase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Genome: plasmid
A;Note: TOL plasmid
C;Function:
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T13169
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T13741
                                                                  A; Description: functions
                                                                                                                                                 A; Molecule type: mF
A; Residues: 1-2186
                                                                                                                                                                                                 A; Title: Tiggrin, a novel D: A; Reference number: Z17625; A; Accession: T13169
                                                                                                                                                                                                                                                  R;Fogerty, F.J.; Fessler, L
Development 120, 1747-1758,
                                                                                                                                                                                                                                                                                  C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: FlyBase:FBgn0000667
A;Introns: 205/3; 227/1; 322/3; 688/3;
A;Note: EG:22E5.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DN
A; Residues: 1-1398
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                                                                                                 A;Cross-references: FlyBase:FBgn0011722
                                                                                                                                                                                A; Status: preliminary; translated
                                                                                                                                                                                                                                                                                    C;Date: 13-Aug-1999 #sequence_revision 13-Aug-1999
C;Accession: T13169
                                                                                                                                                                                                                                                                                                                 C; Species: Drosophila melanogaster
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                                                                                                                                  A;Cross-references:
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5; MUID:95009506; PMID:7924982
                 48.7%;
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38; L. No. 1.4e+02; 7;
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(NAD+); aldehyde
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Search completed: January 7, 2003, 12

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:/cgn2_6/ptodata/1/paa/US084_COMB.pep:*
:/cgn2_6/ptodata/1/paa/US085_COMB.pep:*
:/cgn2_6/ptodata/1/paa/US086_COMB.pep:*
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  US-09-876-204-4
PCT-US99-24747-2
PCT-US99-24747-6
US-09-177-315-6
PCT-US99-24747-4
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# ALIGNMENTS

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APPLICANT: Gordon C. Shore et al.
TITLE OF INVENTION: BASK-MEDIANED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 4, Application US/09876204
; GENERAL INFORMATION:
                                                                                                                                                               LENGTH: 20
TYPE: PRT
ORGANISM: Mus musculus
                                     1 MDGSGXXXXXGGPTSSEQI 19
MDGSGEQLGSGGPTSSEQI 19
                                                                                           Similarity
                                                                          Conservative
                                                                                           88.5%;
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                                                                                           Score 69; Pred. No. 7
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LENGTH: 70
; TYPE: PRT
; ORGANISM: Mus musculus
US-09-177-315-2
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US-09-177-315-2
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PCT-US99-24747-6
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Best Local Similarity 73.7
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 Query Match
                                                                                                        SEQ ID NO 2
                                                                                                             APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
CURRENT APPLICATION NUMBER: US/09/177,315
CURRENT EILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34.
SOFTWARE: Patentin Ver. 2.0
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Best Local Similarity 73.7%;
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LENGTH: 70
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CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
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APPLICANT: Easton, Rachael M.
TITLE OF INVENTIONS: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
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CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
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APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Ver. 2.0
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Pred. No. 0.00031;
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DB
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; TYPE: PRT
; ORGANISM: Mus musculus
US-09-177-315-6
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US-09-177-315-6
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PCT-US99-24747-4
                                                Sequence 8, Application PC/TUS9924747
GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 4
LENGTH: 78
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Best Local Similarity
Matches 14; Conserv
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Matches 14; Conservative
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Best Local Similarity
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APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: PCT/US99/24747
CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
                CURRENT APPLICATION NUMBER: PCT/US99/24747
CURRENT FILING DATE: 1999-10-22
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CURRENT APPLICATION NUMBER: US/09/177,315
CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
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NUMBER OF SEQ ID NOS:
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Pred. No. 0.00035;
Pred. No. 0.00035;
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Pred. No. 0.00031;
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0; Mismatches 5;
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GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
Sequence 45, Application PC/TUS9819765
                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/177,315
CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 8
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SEQ ID NO 4
LENGTH: 78
TYPE: PRT
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Best Local Similarity 73.7
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CURRENT FILING DATE: 1998-10-22
NUMBER OF SEO ID NOS: 34
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APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
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TYPE: PRT
ORGANISM: Mus musculus
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LENGTH: 192
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Best Local :
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Best Local Similarity
                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: PCT/US99/24747
CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                  APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
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APPLICANT: WASHIN
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                                                                                                                                                                      TYPE: PRT
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MEDIUM TYPE: Floppy
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TELEPHONE: 314-727-5188
TELEFAX: 314-727-6092
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NAME: HENDERSON, MELODIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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REGISTRATION NUMBER: 37,848
REFERENCE/DOCKET NUMBER: 60
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                Local Similarity
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                                                                              88.5%;
73.7%;
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73.7%;
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                                                              Score 69; DB 1; per pred. No. 0.00096; S;
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Pred. No. 0.00096;
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                                                                                                Length 192;
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                                                                Gaps
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RESULT 12

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US-08-112-208B-5

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RESULT 13
US-08-248-819-5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (415) 326-24
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
APPLICATION NUMBER: US 08/112,208 FILING DATE: 26-AUG-1993 ATTORNEY/AGENT INFORMATION:
                              CLASSIFICATION: 536
PRIOR APPLICATION NUMBER: 1
                                                                                                              SOFTWARE: WordPerfect CURRENT APPLICATION DATA:
                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                            STREET: 3/2 CITY: Palo alto CITY: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M.
REGISTRATION NUMBER: 30,223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: STREET Palo alto CITY: Palo alto CTATE: California
                                                                                                                                                                                                                                                                                                                        NERAL INFORMATION: KOTSMEYER, Staniey CAPPLICANT: KOTSMEYER, Staniey TITLE OF INVENTION: Cell Death
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA: APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (415) 326-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
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                                                                               APPLICATION NUMBER: US/0 FILING DATE: 25-MAY-1994
                                                                                                                                                OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                  COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 26-AUG-1993 CLASSIFICATION: 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                                                ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
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es 14; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MDGSGEQLGSGGPTSSEQI 19
                                                                                                                                                                                                                  94301
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                                                                                                                                                                                                                                                                                 379 Lytton Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         192 amino acids
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WENTION: Cell Death Regulators
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                                                                                                                                WordPerfect 5.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WordPerfect 5.1
                                                                                                                                                               IBM PC compatible
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unknown
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88.5%;
                                                                                                                                                                                                                                                                                                                                                                Stanley J
                                                                                                US/08/248,819
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                                                                                                                                                                              3.5 inch,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3.5 inch, 1.4 Mb storage
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 69; DB 5;
Pred. No. 0.00096;
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                                                                                                                                                                                                                                                                                                                                              Regulators
                                                                                                                                                                                1.4 Mb storage
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GENERAL INFORMATION:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (415) 326-24 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/112,208
FILING DATE: 26-AUG-1993
                                                    FEATURE:
                                                                 MOLECULE TYPE: protein
                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: (415) 326-2400
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NAME/KEY: Protein LOCATION: 1..192 OTHER INFORMATION:
                                                                                              STRANDEDNESS:
                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                              NAME: Smith, William M
REGISTRATION NUMBER: 30
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: 25-MA
                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 0 FILING DATE: 10-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: HEREW
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Townsc...
corpeer: 379 Lytton Avenue
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STRANDEDNESS: un
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                                                                                                                                LENGTH:
                                 NAME/KEY:
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                                                                                                             amino acid
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                                                                                                                                192 amino acids
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                                                                                    Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                (415) 326-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Townsend and Townsend Khourie and Crew
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                                                                                                                                                                                                                                                                William M
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TD NO: 5:
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73.7%;
 /note= "Protein sequence of murine
                                                                                                                                                                                                                                                                                                                                                               US 08/248,819
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 192;
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; LENGTH: 192 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-483-233-8
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US-08-483-233-8
US-08-483-233-8; Sequence 8, Application US/08483233; Sequence 8, Application US/08483233; GENERAL INFORMATION:
TITLE OF INVENTION: CELL DEATH REGULATORS:
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS:
Search completed: January 7, 2003, 12:36:29 Job time: 134 secs
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                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 08/337,646
FILING DATE: 10-NOV-1994
PRIOR APPLICATION NUMBER: US 08/248,819
FILING DATE: 25-MAY-1994
PRIOR APPLICATION NUMBER: US 08/248,819
FILING DATE: 25-MAY-1994
PRIOR APPLICATION NUMBER: US 08/112,208
FILING DATE: 26-AUG-1993
ATTONNEY,AGENT INFORMATION:
NAME: Smith, William M
REGISTRATION NUMBER: 15726A-000640
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 1973 amino-acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 88.5
Best Local Similarity 73.7
Matches 14; Conservative
                                                                                                                                                                    Query Match
Best Local 9
                                                                                                                                                 Matches 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentln Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/483,233
FILING DATE: HEREWITH
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                              y Match 88.5%;
Local Similarity 73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U
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                                                                                           1 MDGSGXXXXXGGPTSSEQ1 19
                                                                        MDGSGEQLGSGGPTSSEQI 19
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                                                                                                                                               Conservative
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                                                                                                                                    Score 69; DB 8; Length 172
Pred. No. 0.00096;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 69; DB 8;
Pred. No. 0.00096;
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                                                                                                                                                                              Length 192;
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         117078 seqs, 18951520 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-876-204-1
78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               January 7, 2003, 12:30:53;
              10:
11:
12:
13:
14:
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                                                                                                                                                                                                                                                                                                                                                                                       Published_Applications_AA: *
/cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US00_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US00_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US00_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US00_NEW_PUB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenCore version 5.1.3 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Search time 7.30769 Seconds
(without alignments)
49.274 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Result No.	Score	Query Match	Query Match Length DB	DВ	ID	Description
1	69	88.5	20	10	US-09-876-204-4	Sequence 4, Appli
2	68	87.2	19	10	US-09-876-204-1	۳.
ω	68	87.2	20	10	US-09-876-204-5	5
4	67	85.9	20	10	US-09-876-204-3	Sequence 3, Appli
5	64	82.1	331	10	US-09-033-525-2	N,
6	38	48.7	154	10	US-09-876-889-16	16,
7	36	46.2	500	10	US-09-766-378A-25	25,
œ	36	46.2	547	10	US-09-815-837-90	90,
9	36	46.2	553	10	US-09-815-837-50	Sequence 50, Appl
10	36	46.2	555	10	US-09-815-837-71	71,
11	36	46.2	559	10	US-09-815-837-96	96,
12	36	46.2	560	10	US-09-815-837-73	73,
13	36	46.2	562	10	US-09-815-837-70	70,
14	36	46.2	676	10	US-09-815-837-69	69,
15	36	46.2	678	10	US-09-815-837-68	68,
16	36	46.2	772	10	US-09-815-837-74	74,
17	36	46.2	774	10	US-09-815-837-72	72,
18	35	44.9	46	9	US-09-989-919-115	•
19	35	44.9	473	10	US-09-844-353A-99	90

45	44	43	42	4.1	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34.5	35	35	35	35	35
43.6	43.6	43.6	43.6	43.6	43.6				43.6		43.6		43.6			43.6		43.6		44.9	44.9			44.9
809	790	692	506	490	463	437	398	398	398	344	343	338	319	314	177	171	127	121	258	880	874	850	646	645
9	10	9	10	9	9	12	12	10	10	10	9	9	9	9	10	9	10	9	9	10	10	10	9	9
US-09-973-025-50	US-09-801-368-184	US-09-973-025-48	US-09-976-165-19	US-09-973-025-36	US-09-973-025-46	US-10-016-358-2	US-10-037-616-26	US-09-842-316-2	US-09-815-333-2	us-09-925-301-967	US-09-973-025-40	US-09-973-025-38	US-09-973-025-44	US-09-973-025-42	US-09-916-940-44	US-10-061-395-76	US-09-916-940-43	US-10-061-395-75	US-09-738-626-4896	US-09-223-490-10	US-09-985-675-1	US-09-985-675-2	US-09-964-899-53	US-09-964-899-17
Sequence 50, Appl	Sequence 184, App	Sequence 48, Appl	Sequence 19, Appl	Sequence 36, Appl	Sequence 46, Appl	Sequence 2, Appli	Sequence 26, Appl	Sequence 2, Appli	Sequence 2, Appli	Sequence 967, App	Sequence 40, Appl		Sequence 44, Appl	Sequence 42, Appl	Sequence 44, Appl	Sequence 76, Appl	Sequence 43, Appl	Sequence 75, Appl	Sequence 4896, Ap	Sequence 10, Appl	Sequence 1, Appli	Sequence 2, Appli	Sequence 53, Appl	Sequence 17, Appl

# ALIGNMENTS

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Sequence 1, Application US/09876204; Patent No. US20020052316A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-876-204-4
; Sequence 4, Application US/09876204
; Patent No. US20020052316A1
                                                                                                                                                                                                                RESULT 2
US-09-876-204-1
                                                                                                                                                                                                                                                                                                                                        Qy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Gordon C. Shore et al.
APPLICANT: GORDON C. Shore et al.
TITLE OF INVENTION: BAX.MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILLING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 4
LENGTH: 2
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING TITLE OF INVENTION: REAGENTS AND METHODS FILE REFERENCE: 50013/011001 CURRENT APPLICATION NUMBER: US/09/876,204 CURRENT FILING DATE: 2001-06-06 PRIOR APPLICATION NUMBER: 09/166,028 PRIOR FILING DATE: 1998-10-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 7 SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
                                                                                                                                                                                                                                                                                                       1 MDGSGEQLGSGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                             1 MDGSGXXXXXGGPTSSEQI 19
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73.7%;
                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                       Score 69; DB 10;
Pred. No. 9.2e-06;
0; Mismatches 5
                                                                                                                                                                                                                                                                                                                                                                                                                               Length 20;
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GENERAL INFORMATION:

APPLICANT: GORGOR C. Shore et al.

APPLICANT: GORGOR C. Shore et al.

TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING

TITLE OF INVENTION: REAGENTS AND METHODS

FILE REFERENCE: 50013/011001

CURRENT APPLICATION NUMBER: US/09/876,204

CURRENT FILING DATE: 2001-06-06

PRIOR APPLICATION NUMBER: 09/166,028

PRIOR FILING DATE: 1998-10-05

NUMBER OF SEQ ID NOS: 7

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                   Дb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : LENGTH: 20
TYPE: PRT
ORGANISM: Rattus norvegicus
US-09-876-204-5
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APPLICANT: GOTHOR C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 5
                  SEQ ID NO 3
                                                                                                                                                                                                                            Sequence 3, Application US Patent No. US20020052316A1
                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-66-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR FILING DATE: 1998-10-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFTMARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Xaa at 6 can be E or D; OTHER INFORMATION: Xaa at 8 can be L or P; OTHER INFORMATION: Xaa at 10 can be S or G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Synthetic based OTHER INFORMATION: sapiens, Mus mus
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ORGANISM: Artificial Sequence
LENGTH: 20
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                                                                                                                                                                                                                                                                                                                                                                 1 MDGSGXXXXXGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                   1 MDGSGDHLGGGGPTSSEQI 19
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                                                                                                                                                                                                                                                                                                                                                                                                     14;
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100.0%;
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73.7%;
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Pred. No. 1.4e-05;
""" matches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 68;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sed on consensus sequence of Homo musculus, and Rattus norvegicus
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Xaa
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be R or
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; Sequence 16, Application US/09876889
; Patent No. US20020076715A1
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-033-525-2
                                                                                                                                                                                                                                                                                                                                                                                                                          Db
                                                                                     ; ORGANISM: Homo sapien US-09-876-889-16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ fo:
SEQ ID NO 2
                                        Query Match
Best Local
                                                                                                                              SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 16 LENGTH: 154
                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 68.4
Matches 13; Conservative
                            Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                      TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR OVARIAN TITLE OF INVENTION: CANCER THERAPY AND DIAGNOSIS FILE REFERENCE: 210121.466C3 CURRENT APPLICATION NUMBER: US/09/876,889 CURRENT FILING DATE: 2001-06-06 NUMBER OF SEQ ID NOS: 353
                                                                                                                                                                                                                                                                                       APPLICANT: Benson, Darin R. APPLICANT: Lodes, Michael J.
                                                                                                                                                                                                                                                            APPLICANT: Mitcham, Jennifer L. APPLICANT: King, Gordon E.
                                                                                                                  TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                       140 LDGSGEQPRGGGPTSSEQI 158
                           Local Similarity hes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 73.7
nes 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MDGSGXXXXXGGPTSSEQI 19
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1 MDGSGXXXXXGGPTSSEQ 18
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73.7%;
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68.4%;
                                        48.7%;
                           Score 38; DB
Pred. No. 11;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 64; DB 10;
Pred. No. 0.00099;
1; Mismatches 5;
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Pred. No. 2e-05;
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                                                       10; Length 154;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 331;
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                            Indels
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Вþ

72 LEGSGSAAGEGKPALSEE 89

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DЬ
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                                                                      ; GENERAL INFORMATION:
                                                                                     ; Sequence 90, Application US/09815837
; Patent No. US20020082411A1
                                                                                                                          US-09-815-837-90
                                                                                                                                                                                                                                                                                                                                             ; SEQUENCE DESCRIPTION: SEQ ID NO: 25: US-09-766-378A-25
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Sequence 25, Application US/09766378A; Patent No. US20020091079A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                         Query Match
                                               APPLICANT: Carter, Darrick
                                  APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 25: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                254 GSGGGGSGGGSSSE 268
                                                                                                                                                                                                                                                                       Local Similarity es 8; Conserv
                                                                                                                                                                                                                                   3 GSGXXXXXGGPTSSE 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-523-3400
TELEFAX: 617-523-6440
TELEX: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 08/960,190
FILING DATE: 29-0CT-1997
ATTORNEY/AGENT INFORMATION:
NAME: COTIESS, Peter F
REGISTRATION NUMBER: 33,860
REFERENCE/DOCKET NUMBER: 48002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Dike, Bronstein, Roberts & Cushman,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Rhode, Peter R.
                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/766,378A FILING DATE: 19-Jan-2001 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: FastSEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 02109
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 130 Water Street
             Zhu, Shirley
Arimilli, Subhashini
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 500 amino acids
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                                                                                                                                                                                                                                                                       Conservative
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Wong, Hing C.
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53.3%;
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                                                                                                                                                                                                                                                                                      Score 36;
Pred. No.
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                                                                                                                                                                                                                                                                                      SEQ ID NO 50
LENGTH: 553
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LENGTH: 547
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                                                                           Matches
                                                                                                            Query Match
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APPLICANT: Wang, Aijun
APPLICANT: Corixa Corporation
TITLE OF INVENTION: Immune Medators and Related Methods
FILE REFERENCE: 014058-005670US
CURRENT APPLICATION NUMBER: US/09/815,837
CURRENT FILING DATE: 2001-03-22
CURRENT FILING DATE: 2001-03-22
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                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 2000-03-22
PRIOR APPLICATION NUMBER: US 60/204,249
PRIOR FILING DATE: 2000-05-15
PRIOR APPLICATION NUMBER: US 60/264,003
PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 129
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PRIOR FILING DATE: 2000-05-15
PRIOR APPLICATION NUMBER: US 60/264,003
PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 129
SOFTWARE: Patentin Ver: 2.1
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CURRENT FILLING DATE: 2001-03-22
PRIOR APPLICATION NUMBER: US 60/191,274
PRIOR FILING DATE: 2000-03-22
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TITLE OF INVENTION: Immune Medators and Related Methods
FILE REFERENCE: 014058-005670US
                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Ver.
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                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
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241
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                                    3 GSGXXXXXGGPTSSE 17
                                                                                              Local
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GSGGGGSGGGSSSE 255
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US20020082411A1
                                                                       Similarity 53...
8; Conservative
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                                                                                              46.2%;
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53.3%;
                                                                                              Score
Pred.
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Pred. No.
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                                                                                              NO:
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79;
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RESULT 10

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; OTHER INFORMATION: Description of Artificial Sequence:pCB220 ; OTHER INFORMATION: recombinant MHC class II heterodimer US-09-815-837-96
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Query Match
Best Local Similarity
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APPLICANT: Corixa Corporation
TITLE OF INVENTION: Immune Medators and Related Methods
FILE REFERENCE: 014058-005670US
CURRENT APPLICATION NUMBER: US/09/815,837
CURRENT FILING DATE: 2001-03-22
PRIOR APPLICATION NUMBER: US 60/191,274
PRIOR FILING DATE: 2000-03-22
PRIOR FILING DATE: 2000-03-22
                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/204,249
PRIOR FILING DATE: 2000-05-15
PRIOR APPLICATION NUMBER: US 60/264,003
PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ. ID NOS: 129
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APPLICANT: Zhu, Shirley
APPLICANT: Arimilli, Subhashini
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CURRENT FILING DATE: 2001-03-22
PRIOR APPLICATION NUMBER: US 60/191,274
PRIOR FILING DATE: 2000-03-22
PRIOR APPLICATION NUMBER: US 60/204,249
PRIOR FILING DATE: 2000-05-15
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APPLICANT: Corixa Corporation
TITLE OF INVENTION: Immune Medators and Related Methods
FILE REFERENCE: 014058-005670US
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PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 129
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                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
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                                                                                                                                                                                                  ENGTH: 559
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Arimilli, Subhashini
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Score 36;
Pred. No.
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Pred. No. 80;
  DВ
81;
                    10;
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Query Match
Best Local Similarity
Watches 8; Conserve
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APPLICANT: Zhu, Sh
APPLICANT: Arimill
APPLICANT: Wang, A
APPLICANT: Corixa
               SOFTWARE: PatentIn Ver. SEQ ID NO 70
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LENGTH: 560
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APPLICANT: Corixa Corporation
TITLE OF INVENTION: Immune Medators and Related Methods
FILE REFERENCE: 014058-005670US
CURRENT APPLICATION NUMBER: US/09/815,837
CURRENT FILING DATE: 2001-03-22
CURRENT FILING DATE: 2001-03-22
                                        PRIOR APPLICATION NUMBER: US 60/264,003
PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 129
SOFTWARE: Patentin Ver: 2.1
                                                                                                                          PRIOR APPLICATION NUMBER: US 60/191,274
PRIOR FILING DATE: 2000-03-22
PRIOR APPLICATION NUMBER: US 60/204,249
PRIOR FILING DATE: 2000-05-15
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PRIOR FILING DATE: 2000-03-22
PRIOR APPLICATION NUMBER: US 60/204,249
PRIOR FILING DATE: 2000-05-15
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PRIOR FILING DATE: 2001-01-23
NUMBER OF SEQ ID NOS: 129
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CURRENT FILING DATE: 2001-03-22
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TITLE OF INVENTION: Immune Medators and Related Methods
FILE REFERENCE: 014058-005670US
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LENGTH:
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Arimilli, Subhashini
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   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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| cgn2_6/ptcdata/2/paa/US06_NEW_COMB.pep:*
| cgn2_6/ptcdata/2/paa/US07_NEW_COMB.pep:*
| cgn2_6/ptcdata/2/paa/US08_NEW_COMB.pep:*
| cgn2_6/ptcdata/2/paa/US08_NEW_COMB.pep:*
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US-10-306-878-45
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US-09-134-000C-4348
PCT-US02-327727-10714
US-10-092-411A-5332
US-60-425-158-26
US-60-425-158-28
US-60-425-158-38
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US-60-425-158-49
US-60-425-158-59
US-60-425-158-69
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US-09-724-676-55403
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US-09-724-676-97063
US-10-325-891-4
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US-10-38-951-54
US-10-38-951-54
US-10-38-138-65
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US-10-376-744-2564
US-10-203-138A-13021
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120.181 Million cell updates/sec
          Sequence 5, Appli
Sequence 46, Appli
Sequence 4348, Ap
Sequence 10714, A
Sequence 10714, A
Sequence 20, Appli
Sequence 23, Appli
Sequence 23, Appli
Sequence 31, Appli
Sequence 35, Appli
Sequence 35, Appli
Sequence 55403, A
Sequence 57063, A
Sequence 97063, Appli
Sequence 54, Appli
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ALIGNMENTS	US-10-218-102-365 PCT-US2-32727-19622 US-10-057-498-19622 PCT-US02-32727-18710 US-10-057-498-18710 US-10-276-781-1619 PCT-US02-32727-6231 US-09-724-676-52306 US-09-724-676-52306 US-09-724-676-5231 PCT-US02-32727-25053 PCT-US02-32727-25053 PCT-US02-32727-25223 US-10-057-498-25223 US-10-057-498-25053 PCT-US02-32727-15184 PCT-US02-32727-15184 PCT-US02-32727-17216 US-10-057-498-16184
	Sequence 365, 7 Sequence 19622; Sequence 18710, Sequence 18710, Sequence 1619, Sequence 6231, Sequence 6231, Sequence 25053, Sequence 25053, Sequence 22023, Sequence 22223, Sequence 3527, Sequence 3527, Sequence 3527, Sequence 3527, Sequence 3527, Sequence 11814, Sequence 117216, Sequence 117216
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#### Sequence 5, Application US/10306878 GENERAL INFORMATION: APPLICANT: Reed, John C. APPLICANT: Guo, Bin TITLE OF INVENTION: Methods for Identifying Modulators of TITLE OF INVENTION: Apoptosis FILE REFERENCE: P-LJ 553 CURRENT APPLICATION NUMBER: US/10/306,878 CURRENT FILING DATE: 2002-11-27 PRIOR APPLICATION NUMBER: US 60/334,149 PRIOR FILING DATE: 2001-11-28 NUMBER OF SEQ ID NOS: 28 SOFTWARE: FastSEQ for Windows Version 4.0 ; ORGANISM: Homo PCT-US02-38191-5 дb ; Sequence 5, Application PC/TUS0238191 ; GENERAL INFORMATION: RESULT 1 PCT-US02-38191-5 US-10-306-878-5 APPLICANT: The Burnham Institute APPLICANT: Reed, John C. APPLICANT: Guo, Bin TITLE OF INVENTION: Methods for Identifying Modulators of TITLE OF INVENTION: Apoptosis FILE REFERENCE: FP-LJ 5483 SEQ ID NO 5 LENGTH: 192 TYPE: PRT NUMBER OF SEQ ID NOS: 28 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 5 Matches Query Match Best Local Similarity COURRENT APPLICATION NUMBER: PCT/US02/38191 CURRENT FILING DATE: 2002-11-27 PRIOR APPLICATION NUMBER: US 60/334,149 PRIOR FILING DATE: 2001-11-28 TYPE: PRT LENGTH: 192 1 MDGSGEQPRGGGPTSSEQIM 20 1 MDGSGEQPRGGGPTSSEQIM 20 20; Conservative sapiens 100.0%; Score 20; DB 1; 100.0%; Pred. No. 7.4e-12; 0; Mismatches Length 192; Indels 0; Gaps

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RESULT 4
US-09-134-000C-4348
Sequence 4348, Application US/09134000C
GENERAL INFORMATION:
                                                                                 ; NAME/KEY: MISC_FEATURE
; LCGATION: (44)...(44)
; OTHER INFORMATION: Amino acid 44 is Xaa wherein Xaa = US-09-134-000C-4348
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Query Match
Best Local Similarity 10...
Conservative
                                                                                                                                                         NUMBER OF SEQ ID NOS: 6812
SOFTWARE: PatentIn version 3.1
SEQ ID NO 4348
LENCTH: 68
TYPE: PRT
ORGANISM: Enterococcus faecalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 46
LENGTH: 191
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Best Local :
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PRIOR FILING DATE: 2002-02-28
PRIOR APPLICATION NUMBER: 60/332,886
PRIOR FILING DATE: 2001-11-06
PRIOR APPLICATION NUMBER: 60/306,091
PRIOR APPLICATION NUMBER: 60/306,091
PRIOR FILING DATE: 2001-07-17
NUMBER OF TAXABLE
                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/134,000C CURRENT FILING DATE: 1998-08-13 PRIOR APPLICATION NUMBER: US 60/055,778 PRIOR FILING DATE: 1997-08-15
                                                                                                                                                                                                                                                                                                                   APPLICANT: Lynn Doucette-Stamm et al TITLE OF INVENTION: NUCLEIC ACID AND AMINO TITLE OF INVENTION: ENTEROCOCCUS FAECALIS FILE REFERENCE: 032796-032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: LIU, YUYING
TITLE OF INVENTION: THERAPEUTIC AGENTS COMPRISING PRO-APOPTOTIC PROTEINS
FILE REFERENCE: CLFR:012US
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                                                                                                                                                FEATURE:
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      Sequence 5332, Application US/10092411A
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Query Match
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US-10-057-498-10714
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PCT-US02-32727-10714
                                                                                                                                               APPLICANT: Mitcham, Jennifer
APPLICANT: Skeiky, Yasir
APPLICANT: Skeiky, Yasir
APPLICANT: Persing, David
TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acne
FILE REFERENCE: 210121.514
CURRENT APPLICATION NUMBER: US/10/057,498
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 29212
SEQ ID NO 10714
LENGTH: 94
TYPE: PRT
                                                                                                                                                                                                                                                                                                                        Sequence 10714, Application US/10057498 GENERAL INFORMATION:
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CURRENT FILING DATE: 2002-10-11
NUMBER OF SEQ ID NOS: 30992
SEQ ID NO 10714
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30 GPTSSE 35
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Jen, Shyian
Lodes, Michael
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Bhatia, Ajay
Maisonneuve, Jean Francois
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Barth, Brenda
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Jones, Robert
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                                                           Conservative
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; ORGANISM: Homo
US-60-425-158-26
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; ORGANISM: Staphylococcus epidermidis
US-10-092-411A-5332
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PRIOR PRIOR ETLING DATE: 2002-09-16
PRIOR PPLICATION NUMBER: 60/323,349
PRIOR FILING DATE: 2001-09-18
PRIOR APPLICATION NUMBER: PCT/US00/35017
PRIOR FILING DATE: 2000-12-22
PRIOR FILING DATE: 2000-04-25
PRIOR FILING DATE: 2000-04-25
PRIOR FILING DATE: 2000-04-25
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Best Local S
Matches 6
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SEQ ID NO 5332
LENGTH: 120
                        Query Match
Best Local S
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        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Wang, Zhiwei
APPLICANT: Tang, Y. Tom
TITLE OF INVENTION: Methods and Materials Relating
TITLE OF INVENTION: Polynucleotides
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PRIOR FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR FILING DATE: 1997-11-08
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR FILING DATE: 1997-08-14
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CURRENT APPLICATION NUMBER: US/60/425,158
CURRENT FILING DATE: 2002-11-08
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                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 2000-02-03
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                                                                                                                                                         LENGTH: 134
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                                                                                                                                                                                                                                                                                    FILING DATE: 2000-04-27
APPLICATION NUMBER: 09/496,914
                                                                                                                                                                                                                                                                                                                            FILING DATE: 2001-02-05
APPLICATION NUMBER: 09/560,875
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APPLICATION NUMBER: 09/491,404
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    h 30.0%; Score 6; DB Similarity 100.0%; Pred. No. 86 6; Conservative 0; Mismatches
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                        DB 7;
                                              Length 134;
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                      PRIOR APPLICATION NUMBER: 60/323,349 PRIOR FILING DATE: 2001-09-18
PRIOR APPLICATION NUMBER: PCT/US00/35017
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US-60-425-158-31
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LENGTH: 155
APPLICANT: Wang, Zhiwei
APPLICANT: Tang, Y. Tom
APPLICANT: Tang, Y. Tom
TITLE OF INVENTION: Methods and Materials Relating to Ly-6-like Polypeptides and
TITLE OF INVENTION: Polynucleotides
FILE REFERENCE: HYS-66
CURRENT APPLICATION NUMBER: US/60/425,158
CURRENT FILING DATE: 2002-11-08
PRIOR APPLICATION NUMBER: 10/245,817
PRIOR FILING DATE: 2002-09-16
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Best Local
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APPLICANT: Tang, Y. Tom
TITLE OF INVENTION: Methods and Materials Relating to Ly-6-like Polypeptides and
TITLE OF INVENTION: Polynucleotides
FILE REFERENCE: HYS-66
CURRENT APPLICATION NUMBER: US/60/425,158
CURRENT FILING DATE: 2002-11-08
PRIOR APPLICATION NUMBER: 10/245,817
PRIOR FILING DATE: 2002-09-16
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PRIOR APPLICATION NUMBER: 09/488,725
PRIOR FILING DATE: 2000-01-21
PRIOR APPLICATION NUMBER: PCT/US01/02623
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PRIOR FILING DATE: 2001-09-18
PRIOR APPLICATION NUMBER: PCT/US00/35017
PRIOR FILING DATE: 2000-12-22
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PRIOR FILING DATE: 2000-02-03
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PRIOR APPLICATION NUMBER: 09/491,404
PRIOR FILING DATE: 2000-01-25
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100.0%; Pro
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Pred. No.
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; ORGANISM: Homo sapiens US-60-425-158-38
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GENERAL INFORMATION:
APPLICANT: Rupp, Fabio
                                                                     SEQ ID NO 38
LENGTH: 174
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                                                                                                                   SOFTWARE: PatentIn version 3.1
                                                                                                                                      Remaining Prior Application data removed NUMBER OF SEQ ID NOS: 50
                                                                                                                                                                                    PRIOR FILING DATE: 2000-02-03
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PRIOR FILING DATE: 2000-12-22
PRIOR APPLICATION NUMBER: 09/552,317
PRIOR FILING DATE: 2000-04-25
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR FILING DATE: 2000-01-21
PRIOR APPLICATION NUMBER: PCT/US01/02623
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PRIOR APPLICATION NUMBER: 10/245,817
PRIOR FILING DATE: 2002-09-16
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PRIOR APPLICATION NUMBER: 09/496,914
PRIOR FILING DATE: 2000-02-03
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OR APPLICATION NUMBER: PCT/US01/02623
OR FILING DATE: 2001-01-25
OR APPLICATION NUMBER: 99/491,404
OR FILING DATE: 2000-01-25
OR APPLICATION NUMBER: PCT/US01/03800
OR APPLICATION NUMBER: PCT/US01/03800
OR FILING DATE: 2001-02-05
OR FILING DATE: 2000-04-27
OR FILING DATE: 2000-04-27
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PREPLICATION NUMBER: 09/552,317

DR FILING DATE: 2000-04-25

DR FILING DATE: 2000-01-21

DR APPLICATION NUMBER: 09/488,725

DR FILING DATE: 2000-01-21

DR APPLICATION NUMBER: 007/VS01/02623

DR FILING DATE: 2001-01-25
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FILING DATE: 2000-01-25
APPLICATION NUMBER: DT/US01/03800
FILING DATE: 2001-02-05
APPLICATION NUMBER: 09/560,875
FILING DATE: 2000-04-27
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Query Match
Best Local Similarity
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; ORGANISM: HOMO
US-60-425-158-28
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Best Local Similarity
Matches 6; Conserv
                                                    APPLICANT: Rupp, Fabio
APPLICANT: Wang, Zhiwei
APPLICANT: Tang, Y. Tom
TITLE OF INVENTION: Methods and Materials Relating to
TITLE OF INVENTION: Polynucleotides
FILE REFERENCE: HYS-66
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PRIOR APPLICATION NUMBER: 60/323,349
PRIOR FILING DATE: 2001-09-18
PRIOR APPLICATION NUMBER: PCT/US00/35017
PRIOR FILING DATE: 2000-12-22
CURRENT APPLICATION NUMBER: US/60/425,158
CURRENT FILING DATE: 2002-11-08
PRIOR APPLICATION NUMBER: 10/245,817
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CURRENT FILING DATE: 2002-11-08
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APPLICANT: Wang, Zhiwei
APPLICANT: Tang, Y. Tom
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PRIOR FILING DATE: 2000-04-25
PRIOR APPLICATION NUMBER: 09/488,725
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Methods and Materials Relating to Ly-6-like Polypeptides and TITLE OF INVENTION: Polynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: PCT/US01/03800 PRIOR FILING DATE: 2001-02-05
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH:
                                                                                                                                                                                                                                                                                      79 GSGEQP
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APPLICATION NUMBER: 09/491,404
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APPLICATION NUMBER: 60/323,349 FILING DATE: 2001-09-18

FILING DATE:

2002-09-16

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US-60-425-158-49
; Sequence 49, Application US/60425158
; GENERAL INFORMATION:
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Best Local Similarity
Watches 6; Conserva
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                                                                              PRIOR FILING DATE: 2000-01-21
PRIOR APPLICATION NUMBER: PCT/US01/02623
PRIOR APPLICATION NUMBER: PCT/US01/02623
PRIOR APPLICATION NUMBER: 09/491,404
PRIOR APPLICATION NUMBER: PCT/US01/03800
PRIOR APPLICATION NUMBER: PCT/US01/03800
PRIOR FILING DATE: 2001-02-05
PRIOR APPLICATION NUMBER: 09/560,875
PRIOR APPLICATION NUMBER: 09/560,875
PRIOR APPLICATION NUMBER: 09/496,914
PRIOR FILING DATE: 2000-04-27
PRIOR APPLICATION NUMBER: 09/496,914
PRIOR FILING DATE: 2000-02-03
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SEQ ID
                                        Remaining Prior Application data removed - See File Wrapper or PALM NUMBER OF SEQ ID NOS: 50
                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR PRIOR
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CURRENT FILING DATE: 2002-11-08
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PRIOR APPLICATION NUMBER: 09/496,914
PRIOR FILING DATE: 2000-02-03
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OR FILING DATE: 2001-09-18
OR APPLICATION NUMBER: PCT/US00/35017
OR FILING DATE: 2000-12-22
OR APPLICATION NUMBER: 09/552,317
OR FILING DATE: 2000-04-25
OR APPLICATION NUMBER: 09/488,725
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                   PatentIn version 3.1
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Search completed: January Job time: 11.7949 secs

7, 2003, 12:46:01

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RESULT 15
US-09-724-676-55403
Sequence 55403, Application US/09724676
GENERAL INFORMATION:
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                                                    Query Match
Best Local S
Matches 6
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SEQ ID NO 55403
LENGTH: 220
TYPE: PRT
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                                                                                                                                                                                     APPLICANT: Compugen LTD TITLE OF INVENTION: Variants of alternative splicing FILE REFERENCE: 129181.4 Compugen CURRENT APPLICATION NUMBER: US/09/724,676 CURRENT FILING DATE: 2000-11-28 NUMBER OF SEQ ID NOS: 97222
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Matches 6; Conserv
                                                                                                                     ORGANISM: Homo sapiens
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TYPE: PRT
                                                 Local Similarity
nes 6; Conserv
 81 PRGGGP
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                         8 PRGGGP 13
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                                              30.0%; 5c.
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Perfect score:
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20
              4569144 seqs, 644733110 residues
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// Cgn2_6/ptodata/1/paa/PCTUS_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO6_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO8_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO8_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO8_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO82_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO83_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO83_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO83_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO86_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO86_COMB.pep:*
// Cgn2_6/ptodata/1/paa/USO86_COMB.pep:*
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(without alignments)
92.105 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

## SUMMARIES

6	5	4	w	2	<u></u>	No.	Result	
20	20	20	20	20	20	Score		
100.0	100.0	100.0	100.0	100.0	100.0	Match Length DB ID	Query	d
78	70	70	70	70	20	Length 1		
1	15	15	_	_	22	B		
1 PCT-US99-24747-3	US-09-177-315-5	US-09-177-315-1	PCT-US99-24747-5	PCT-US99-24747-1	US-09-876-204-3	DB ID		
Sequence 3, Appli	Sequence 5, Appli	Sequence 1, Appli	Sequence 5, Appli	Sequence 1, Appli	Sequence 3, Appli	Description		

### ALIGNMENTS

Query Match 100.0%; Best Local Similarity 100.0%; Matches 20; Conservative  Qy 1 MDGSGEQPRGGGPTSSEQIM 20	RESULT 1  US-09-876-204-3  Sequence 3, Application US/09876204  SEQUENCE I INFORMATION: APPLICANT: GORDON C. Shore et al. APPLICANT: GORDON C. SHORE ET AL. TITLE OF INVENTION: BAX-MEDIATED APO TITLE OF INVENTION: REAGENTS AND ME FILE REFERENCE: 50013/011001  CURRENT APPLICATION NUMBER: US/09/87  CURRENT FILING DATE: 2001-66-06  PRIOR FILING DATE: 1998-10-05  PRIOR FILING DATE: 1998-10-05  NUMBER OF SEQ ID NOS: 7  SOFTWARE: FastSEQ for Windows Versio SEQ ID NO 3  TYPE: PRT ORGANISM: HOMO Sapiens
100.0%; Score 20; DB 22; Length 20; 100.0%; Pred. No. 3.1e-12; vative 0; Mismatches 0; Indels 0; TSSEQIM 20 (1)	ULT 1  09-876-204-3  09-876-204-3  09-876-204-3  equence 3, Application US/09876204  ENERAL INFORMATION:  APPLICANT: GORDON C. Shore et al.  TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING  TITLE OF INVENTION: REACENTS AND METHODS  FILE REFERENCE: 50013/011001  CURRENT APPLICATION NUMBER: US/09/876,204  CURRENT FILING DATE: 2001-06-06  PRIOR APPLICATION NUMBER: 09/166,028  PRIOR APPLICATION NUMBER: 09/166,028  PRIOR FILING DATE: 1998-10-05  NUMBER OF SEQ ID NOS: 7  SOFTWARE: FastSEQ for Windows Version 4.0  EQ ID NO 3  LENGTH: 20  TYPE: PRT  ORGANISM: Homo sapiens  09-876-204-3
Gaps	

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; LENGTH: 70
; TYPE: PRT
; ORGANISM: Homo s
US-09-177-315-1
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US-09-177-315-1
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                                                                                                     CURRENT APPLICATION NUMBER: US/09/177,315
CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application PC/TUS9924747
GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754.
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TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
CURRENT APPLICATION NUMBER: PCT/US99/24747
CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 5
LENGTH: 70
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GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
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Best Local 9
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Query | Match
                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                           APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
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Local Similarity 100.0%;
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RESULT 7
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US-09-177-315-5
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CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
SOPTWARE: PatentIn Ver. 2.0
SEQ ID NO 3
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CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5
LENGTH: 70
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APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachel M.
APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
                                                                                                                Sequence 7, Application PC/TUS9924747 GENERAL INFORMATION:
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Best Local Similarity
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            TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides FILE REFERENCE: 6029-1754
CURRENT APPLICATION NUMBER: PCT/US99/24747
CURRENT FILING DATE: 1999-10-22
                                                                               APPLICANT: Johnson Jr., Eugene M. APPLICANT: Easton, Rachael M.
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APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 78
TYPE: PRT
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Pred. No. 1.1e-11;
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; SEQ ID NO 7

; LENGTH: 78

; TYPE: PRT

; ORGANISM: Homo sapiens

US-09-177-315-7
               RESULT 10
PCT-US99-05359-2
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Best Local S
Matches 20
Sequence 2, Application PC/TUS9905359
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SEQ ID NO 3
LENGTH: 78
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CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
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APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
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CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
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US-09-266-465-2
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US-09-266-465-2
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LENGTH: 131
TYPE: PRT
ORGANISM: Human
Sequence 242, Application PC/TUS0206951
GENERAL INFORMATION:
APPLICANT: Phylos, Inc.
APPLICANT: Phylos, Polypeptides Interactive with BCL-Xl
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APPLICANT: BRUCKHEIMER, EL-
APPLICANT: SARKISS, MONA
APPLICANT: JI, LIN
APPLICANT: ROTH, JACK
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FILE REFERENCE: INGN:0885/INGN:0888
CURRENT APPLICATION NUMBER: PCT/US99/05359
CURRENT FILING DATE: 1999-03-11
EARLIER APPLICATION NUMBER: 60/077,541
EARLIER FILING DATE: 1998-03-11
ROMBER: OF SEC ID NOS: 10
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CURRENT FILING DATE: 1999-03-11
CURRENT FILING DATE: 1999-03-11
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                     EARLIER APPLICATION NUMBER: 60/077,541 EARLIER FILING DATE: 1998-03-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: MCDONNELL, TIMOTHY J. APPLICANT: SWISHER, STEVEN G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: JI, LIN APPLICANT: ROTH, JACK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: BRUCKHEIMER, APPLICANT: SARKISS, MONA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: SWISHER, STEVEN G. APPLICANT: FANG, BINGLIANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: MCDONNELL,
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Pred. No.
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Pred. No.
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; ORGANISM: Homo sapiens US-09-791-537-52874
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US-09-791-537-52874
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SEQ ID NO 242
LENGTH: 135
TYPE: PRT
ORGANISM: Homo sapiens
US-10-092-750-242
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US-10-092-750-242
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; TYPE: PRT
; ORGANISM: Homo sapiens
PCT-US02-06951-242
                                                                                                                  APPLICANT: Bionomix, Inc.
APPLICANT: Debe, Derek
APPLICANT: Debe, Derek
APPLICANT: Debe, Derek
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBE
TITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
SOFTWARE: Patentin version 3.0
SEQ ID NO 52874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 242, Applica GENERAL INFORMATION:
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CURRENT APPLICATION NUMBER: PCT/US02/06951
CURRENT FILING DATE: 2002-03-07
PRIOR APPLICATION NUMBER: US 60/274,526
PRIOR FILING DATE: 2001-03-08
NUMBER OF SEO ID NOS: 253
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 242
                                                                                                                                                                                                                                                                                                                                             Sequence 52874, Application US/09791537 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Alpin, Julia
APPLICANT: Wright, Martin C.
TITLE OF INVENTION: Polypeptides Interactive with BCL-Xl
FILE REFERENCE: 50036/050002
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                                                                                TYPE: PRT
                                                                                                 LENGTH: 143
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    100.0%;
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Pred. No. 1.8e-1
    Score 20;
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    DB 21;
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Length 143;
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RESULT 15
US-60-350-061-261
Occupance 261, Ap
Search completed: January 7, 2003, 12:45:31 Job time: 140 secs
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                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/60/350,061
CURRENT FILING DATE: 2007-01-18
NUMBER OF SEQ ID NOS: 981
SOFTWARE: PatentIn version 3.0
SEQ ID NO 261
LENGTH: 143
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                          Sequence 261, Application US/60350061
GENERAL INFORMATION:
APPLICANT: Bristol-Myers Squibb Company
TITLE OF INVENTION: IDENTIFICATION OF GENES FOR PREDICTING ACTIVITY OF COMPOUNDS T
TITLE OF INVENTION: INTERACT WITH SRC TYROSINE KINASES AND THE SRC TYROSINE KINAS
FILE REFERENCE: D0185
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Local Similarity 100.0%;
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Pred. No. 1.9e-11;
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HS70_HYDMA
YGRM_MICRO
                  GME2_HUMAN
HS72_MOUSE
HS72_RAT
TY03_MOUSE
CHD1_HUMAN
NEU1_CATCO
VLPA_MYCHR
COAT_OYMV
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HS73_BOVIN
HS72_HUMAN
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GME2_RAT
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DRPL_HUMAN
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107.838 Million cell updates/sec
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escherichia
bos taurus
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bacillus cl
schizosacch
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mus musculu
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sapien
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                RESULT 1
BAXA_MOUSE
ID BAXA_M
AC 007813
AC 007
HSSP; P53900,
MGD; MGI:99702; Bax.
MGD; MGI:99702475; BCL2_fa
InterPro; IPR000712; BCL2_fa
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Q07813;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus
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Q99457 homo sapien	NPL3_HUMAN	μ,	506	43.6	34	5
P35582 mus musculu	HN3A_MOUSE	_	468	43.6	34	4
Q50581 mycobacteri	YF26_MYCTU	宀	426	43.6	34	ω
Q979z9 thermoplasm	ENO_THEVO	_	401	43.6	34	2
	HEMZ_DROME	_	384	43.6	34	1
Q62414 mus musculu	NDF2_MOUSE	<b>_</b>	383	43.6	34	0
Q63689 rattus norv	NDF2_RAT	۲	382	43.6	34	9
Q15784 homo sapien	NDF2_HUMAN	_	382	43.6	34	80
P11452 pseudomonas	CLCB_PSEPU	ب	370	43.6	34	7
	YI99_MYCTU	<b>—</b>	359	43.6	34	6
P49770 homo sapien	E2BB_HUMAN	ب	351	43.6	34	5
P32623 saccharomyc	UTR2_YEAST	_	347	43.6	34	4

### ALIGNMENTS

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SPLICING.

-!- TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUES.
-!- DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAD AND BAX FOR THEIR PRO-APOPTOTIC ACTIVITY AND FOR THEIR INTERACTION WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.
-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.
-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
-!- SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                              use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entities requires a license agreement 'Coo to send an amair.
                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-C57BL/6 X DBA/2;
MEDLINE=93364978; PubMed=8358790;
Oltvai Z.N., Milliman C.L., Korsmeyer S.J.;
"Bcl-2 heterodimerizes in vivo with a conserved homolog, Bax, that accelerates programmed cell death.";
Cell 74:609-619(1993).
                                                                          entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; vertebrata; bucereoscomer,
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Apoptosis regulator BAX, membrane isoform alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: Membrane-bound.
ALTERNATIVE PRODUCTS: A 21 kDa MEMBRANE
CYTOPLASMIC PROTEINS BETA AND GAMMA ARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LEADS TO LYMPHOID HYPERPLASIA AND MALE STERILITY, BECAUSE OF THE CESSATION OF SPERM PRODUCTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING TO, AND ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADEMOVIRUS HOMOLOG EIB 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C, ACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS. BAX DEFICIENCY
AAA03622.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                             noved. Usage by and for commercial
  (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEIN ALPHA AND THE TWO GENERATED BY ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOGETHER WITH
                                                                                                                                                                                       restrictions on
tent is in no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BCL-2
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RESULT 2
BAXA_RAT
ID AC 0636
DT 01-N
RAT
Han
RT "The
RT "The
RT Gene
RT 1-Th
RT Gene
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                                                                                     RX MEDLINE-55129487; PubMed-7828336;
RX Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
RT Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
RT Tilly J.L., Tilly K.I., Kenton M.L., Johnson A.L.;
RTILLY Sequence of the characteristic serious 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE-96178771; PubMed-8600029; Han J., Sabbatini P., Perez D., Rao L., "The EIB 19K protein blocks apoptosis by inhibiting the p53-inducible and death-1 Genes Dev. 10:461-477(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMART: SM00337; BCL; 1.

PROSITE; PS01268; BH1; 1.

PROSITE; PS01259; BH2; 1.

PROSITE; PS01259; BH3; 1.

PROSITE; PS50062; BCL2_FAMILY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Cloning of the 3' end of rat bax-alpha and corresponding developmental down-regulation in differentiating primary, oligodendrocytes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria; NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1997 (Rel. 35, Creatdd)
01-NOV-1997 (Rel. 35, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BAXA_RAT
Q63690; Q62995;
01-NOV-1997 (Re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=Sprague-Dawley;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 37-169 FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Neurosci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Apoptosis regulator BAX, membrane isoform alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=97147318; PubMed=8994223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                       SPLICING.
TISSUE SP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MDGSGEQLGSGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDGSGXXXXXGGPTSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PF00452;
; SM00337;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Transmembrane; ; 59 73 98 118 150 165 172 192 172 192
                                          SPECIFICITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              192 AA;
            LEVELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        75-192 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220:183-186(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q64383;
            IN THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21394 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88.5%;
73.7%;
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                                       EXPRESSED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
            TESTIS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BH2.
POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D2E0B3566579FAFF CRC64,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
            AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          death-promoting
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            A WIDE
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5.7e-06;
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y interacting
                                             VARIETY
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cting with and
g Bax protein.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                          OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Murinae; Rattus.
                                                                                                 ALTERNATIVE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      granulosa
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BAXD_
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                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                          Matches
SEQUENCE FROM N.A.

MEDLINE-95331797; PubMed=7607685;
Apte S.S., Mattei M.-G., Olsen B.R.;

"Mapping of the human BAX gene to chromosome 19q13.3-q13.4 isolation of a novel alternatively spliced transcript, BAX Genomics 26:592-594(1995).

-!- SUBCELLULAR LOCATION: Cytoplasmic (Potential).

-!- ALTERNATIVE PRODUCTS: THE MEMBRANE ISOFORM ALPHA AND TH
                                                                                                                                                                                01-OCT-1996
01-OCT-1996
15-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
TRANSMEM
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Apoptosis;
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outset the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for come entities requires a license agreement (See http://www.isb-sib.ch/an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAD AND BAX FOR THEIR PRO-APOPPOTIC ACTIVITY AND FOR THEIR INTERACTION WITH AMTI-APOPPOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.
-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.
-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
-!- SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                                                           MAMUH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00337; BCL; 1.

PROSITE; PS01080; BH1; 1.

PROSITE; PS01258; BH2; 1.

PROSITE; PS01259; BH3; 1.

PROSITE; PS50062; BCL2_FAMILY;
                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR002475;
InterPro; IPR000712;
Pfam; PF00452; Bc1-2;
SMART; SM00337; BCL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (Some or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                    P55269;
                                                                                                                                                                                                                                 BAXD_HUMAN
                                                                                                           NCBI_TaxID=9606;
                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                            \vdash
                                                                                                                                                                                                                                                                                                                 1 MDGSGXXXXXGGPTSSEQI
                                                                                                                                                                     protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           U49729; AAC26327.1;
U59184; AAC52998.1;
U32098; AAA75200.1;
S76511; AAC60700.2;
                                                                                                                                                                                                                                                                                            MDGSGEQLGGGGPTSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S76511;
P53563;
                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                Metazoa; C
                                                                                                                                                                                                                                                                                                                                                                                       192
                                                                                                                                                                   (Rel. 34, Created)
(Rel. 34, Last sequence update)
(Rel. 41, Last annotation updat
, cytoplasmic isoform delta.
                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                       ΑA;
                                                                                                                                                                                                                                 STANDARD;
                                                                                                                        Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                       21350
                                                                                                                                                                                                                                                                                                                                                   87.2%;
73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bcl2_BH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BCL2_family.
                                                                                                                                                                                                                                                                                                                  19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alternative
                                                                                                                                                                                                                                                                                                                                        Score 68; DB Pred. No. 8.8e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                BH1.
BH2.
POTENTIAL.
S -> N (IN
L -> M (IN
C -> Y (IN
L -> F (IN
C -> F (IN
                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                        Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                       7B3CD198D56DF589
                                                                                                                                                                                                                                 143
                                                                                                                                                                              update)
                                                                                                                                                                                                                                                                                                                                     DB 1;
. 8.8e-06;
5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        splicing
                                                                                                                                                                                                                                                                                                                                                                                                   REF.
REF.
REF.
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                                                                                                                                                                                                                                                                                                                                                                                                 Length 192;
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delta.
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Loutstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  outstation
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RESULT 4
BAXA_BO VI
ID BAXA_B
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OC APOPTO
GN BAX.
OS BOS ta
OC EUKARY,
OC Mammal
OC Mammal
OC STRAIN
RX MEDLIN
RX GC -i- GC
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CC -i- SU
CC -i- SU
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CC -i- SI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                        leukemia virus-induced leukemogenesis in cattle.";
Virology 242:184-192(1998).
-!- FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                             002703;
15-JUL-1999 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR002475; BCL2_fai
InterPro; IPR000712; Bcl2_BH
Pfam; PF00452; Bcl-2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long modified and this statement is not removed entities requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                      Bovidae; Bovinae;
NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MIM;
                                                                                                                                                                                                                                                                                                                                                                                                     Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                     Apoptosis regulator BAX, membrane isoform alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BAXA_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Apoptosis; Alternative splicing.
DOMAIN 49 69 BH1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMART; SM00337; BCL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the European Bioinformatics Institute.
                                                                                                                                                                                                                          Increased ratio of bcl 2/bax expression is associated leukemia virus-induced leukemogenesis in cattle.";
                                                                                                                                                                                                                                                           Reyes R.A.,
                                                                                                                                                                                                                                                                        MEDLINE=98162580; PubMed=9501056;
                                                                                                                                                                                                                                                                                            STRAIN=Holstein;
                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS50062; BCL2_FAMILY; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U19599;
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              ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG EIB 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROWE C, ACTIVATION OF CASPASE-3, AND THEREBY APOPTOSIS. BAX DEFICIENCY LEADS TO LYMPHOLD HYPERPLASIA AND MALE STERLLITY, BECAUSE OF THE CESSATION OF SPERM PRODUCTION (BY SIMILARITY).

SUBBINIT: FORMS HOMOLIMERS AND HETERODIMERS TOGETHER WITH BCL-2, E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1 (BY SIMILARITY).

SUBCELLULAR LOCATION: Membrane-bound (By SIMILARITY).

ALTERNATIVE PRODUCTS: A 21 kDa MEMBRANE PROTEIN ALPHA AND THE TWO CYTOPLASMIC PROTEINS BETA AND GAMMA ARE GENERATED BY ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALTERNATIVE SPLICING.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2
SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
 DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600040;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SWISS-PROT entry is copyright. It is produced through a ceen the Swiss Institute of Bioinformatics and the EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MDGSGXXXXXGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MDGSGEQPRGGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HGNC:959; BAX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PS01080; BH1; 1
PS01258; BH2; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101
143 AA;
                                                                                                                                                                                                                                                           Cockerell G.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAC50142.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ISOFORMS,
SPLICING.
                                                                                                                                                                                                                                                                                           TISSUE=Thymus;
                                                                                                                                                                                                                                                                                                                                                        Bos.
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15772 MW;
                                                                                                                                                                                                                                                                                                                                                                      Cetartiodactyla; Ruminantia;
                                                                                                                                                                                                                                                                                                                                                                                      Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            85.9%;
73.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        _family.
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Pred. No. 9.9e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BADE4D71D06A75AB CRC64;
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 BIK,
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                                                                                                                                                                                                                                                                                                                                                                  Pecora; Bovoidea;
 BID,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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 BAK, BAD AND
                                                                                                                                                                                                                                          with
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                                                                                                                                                                                                                                          bovine
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Best Local
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                                                                                                                                                                                                                                                                                                                        BAXA_HUMAN STANDARD; PRT; 192 AA 007812; 01-FEB-1995 (Rel. 31, Created) 01-FEB-1995 (Rel. 31, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update)
                        Chittenden T., Flemington C., Houghton A.B., Elangovan B., Chinnadurai G., Lutz R.J.; "A conserved domain in Bak, distinct from BH1 death and protein binding functions."; EMBO J. 14:5589-5596(1995).
                                                                                                                                   MEDLINE=93364978; PubMed=8358790; Oltvai Z.N., Milliman C.L., Korsmeyer S.J.; "Bcl-2 heterodimerizes in vivo with a conserved accelerates programmed cell death."; Cell 74:609-619(1993).
                                                                                                                                                                                                                                                                                                                                                                                                    HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS01259; BH3; 1.
PROSITE; PS50062; BCL2_FAMILY; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00452; Bcl-2; SMART; SM00337; BCL; J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                           MUTAGENESIS, AND FUNCTION OF BH3 DOMAIN MEDLINE=96091131; PubMed=8521816;
                                                                                                                                                                                                          TISSUE=B-cel.
                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                               Mammalia; Eutheria;
                                                                                                                                                                                                                                                                           Eukaryota;
                                                                                                                                                                                                                                                                                                                  Apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Apoptosis;
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS01080; BH1; PROSITE; PS01258; BH2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; U92569; AAC48806.1; HSSP; Q07817; 1MAZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
VARIANT PLASMACYTOMA GLU-11,
                                                                                                                                                                                                                                                                                        Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
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InterPro; IPR000712;
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APOPTOTIC MEMBERS OF THE BCL-2 FAMILY (BY SIMILARITY).
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         MDGSGEQPRGGGPTSSEQI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      requires a license agreement
                                                                                                                                                                                                                                                                                                                  regulator BAX, membrane isoform alpha
                                                                                                                                                                                                                                                                           Metazoa;
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98
150
172
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118
165
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                                                                                                                                                                                                                                                               Primates;
                                                                                                                                                                                                                                                                          Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21259 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85.9%;
73.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
VARIANT T-CELL ACUTE LYMPHOBLASTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred.
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вн1.
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POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 67;
                                                                                                                                                                                                                                                             Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6B4D5BABF1D5F87E CRC64;
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                                                      and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 192;
                                                                                                                                                               homolog, Bax,
                                                                                R.G.,
                                                     вн2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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                                                      mediates
                                                                                 Gallo G.J.,
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Best Local
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                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS01080; BH1; PROSITE; PS01258; BH2; PROSITE; PS01259; BH3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; L22473; AAA03619.1;
PIR; A47538; A47538.
HSSP; Q07817; 1MAZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement (S or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LEUKEMIA ARG-67, AND VARIANT BURKITT LYMPHOMA VAL-108
MEDLINE-98200607; PubMed-9531611;
Meijerink J.P.P., Mensink E.J.B.M., Wang K., Sedlak T
                                                                                                      SEQUENCE
                                                                                                                                                   VARIANT
                                                                                                                                                                                                                 VARIANT
                                                                                                                                                                                                                                                                                                                         Disease mutation.
                                                                                                                                                                                                                                                                                                                                                                                                                       SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR002475;
InterPro; IPR000712;
Pfam; PF00452; Bcl-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genew;
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                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                         Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS50062; BCL2_FAMILY;
           1 MDGSGXXXXXGGPTSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBCELLULAR LOCATION: Membrane-bound.

ALTERNATIVE PRODUCTS: THE MEMBRANE ISOFORM ALPHA AND THE THREE CYTOPLASMIC ISOFORMS, BETA, GAMMA AND DELTA ARE GENERATED BY ALTERNATIVE SPLICING.

TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUES.

DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAD AND BAX FOR THEIR PRO-APOPPOTIC ACTIVITY AND FOR THEIR INTERACTION WITH ANTI-APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISEASE: Defects in BAX are found in some cell lines from hematopoietic mailignancies as T-cell acute lymphoblastic leukemia, Burkitt lymphoma, and plasmacytoma.

SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR ITS ADENOVIRUS HOMOLOG E1B 19K PROTEIN. INDUCES THE RELEASE OF CYTOCHROME C, ACTIVATION OF CASPASE-3, AND THERRBY APOPTOSIS.

SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS TOGETHER WITH BCL-E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600040;
                                                                                                                                                                                                                                                                                                                                                                                                                  SM00337; BCL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HGNC:959; BAX.
                                                       Similarity
                                                                                                                                                                                                                                                                                                                                        Anti-oncogene;
                                                                                                      192
                                                                                                                                                                                                                                             59
98
150
172
11
                                          Conservative
                                                                                                                                                   108
                                                                                                    Ą,
                                                                                                                                                                                                                                           73
118
165
192
11
                                                                                                                                                   108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               institute. There are no rest
institutions as long as its content
atement is not removed. Usage by an
                                                                                                                                                                                                               67
                                                                                                    21184 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                BCL2_family
Bcl2_BH.
                                                       85.9%;
73.7%;
                                                                                                                                                                                                                                                                                                                                        Transmembrane;
                                                                                                                                                                                                            y -> E (IN PLASMACYTOMA).
/FTId=VAR_013575.
G -> R /TY -
                                        0;
                                                                                                                                           G -> R (IN T-CELL ACUTE LYMPHOBLASTIC LEUKEMIA; LOSS OF HETERODIMERIZATION V BCL-2 OR BCL-X(L)).

/FTId=VAR_007809.
G -> V (IN BURKITT LYMPHOMA; LOSS OF HOMOTOPERIZATION.
                                                       Pred.
                                                                     Score
                                                                                                                   HOMODIMERIZATION).
/FTId=VAR_013576.
                                                                                                   6C0CDB0A7DEE4994 CRC64;
                                                     67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (See http://www.isb-sib.ch/announce/
                                                     DB 1;
1.4e-05;
                                                                                                                                                                                                                                                                                                                                        Alternative splicing,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEATH
                                                                    Length 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY BINDING
                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              o,
                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BCL-2
                                        Gaps
                                                                                                                                                                                                 MITH
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RESULT
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Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BAXB_HUMAN
Q07814;
                                         DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                             -!- DOMAIN: INTACT BH3 DOMAIN IS REQUIRED BY BIK, BID, BAK, BAD ANI BAX FOR THEIR PRO-APOPPOTIC ACTIVITY AND FOR THEIR INTERACTION WITH ANTI-APOPPOTIC MEMBERS OF THE BCL-2 FAMILY.

APOPTOTIC MEMBERS OF THE BCL-2 FAMILY.

-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 1 (BH1) DOMAIN.

-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 2 (BH2) DOMAIN.

-!- SIMILARITY: CONTAINS 1 BCL-2 HOMOLOGY 3 (BH3) DOMAIN.

-!- SIMILARITY: BELONGS TO THE BCL-2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 accelerates programmed cell death."; Cell 74:609-619(1993).
-!- FUNCTION: ACCELERATES PROGRAMMED
                                                                                                         SMART; SM00337; BCL; 1.
PROSITE; PS01258; BH2; 1.
PROSITE; PS01258; BH2; 1.
PROSITE; PS01259; BH3; 1.
PROSITE; PS0062; BCL2_FAMILY;
                                                                                                                                                                                                                                                 PIR; B47538;
HSSP; Q07817;
                                                                                                                                                                                                                                                                                               or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                               use by non-profit institu modified and this statement
                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human) 
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
Apoptosis regulator BAX, cytoplasmic
                                                                                                                                                                                                                                       Genew;
                                                                                                                                                                                                                                                                               EMBL; L22474; AAA03620.1;
                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                           between the Swiss Institute of Bioinfo
the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=93364978; PubMed=839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=B-cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                    DOMAIN
                                                                                                                                                                               Pfam; PF00452; Bcl-2;
                                                                                                                                                                                            InterPro; IPR002475; InterPro; IPR000712;
                                                                                                                                                                                                                       MIM; 600040;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Bc1-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Eutheria;
                                                                                    NIAMOC
                                                                                              Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HOMOLOG E1B 19K PROTEIN.
SUBUNIT: FORMS HOMODIMERS AND HETERODIMERS
E1B 19K PROTEIN, BCL-X(L), MCL-1 AND A1.
SUBCELLULAR LOCATION: Cytoplasmic.
ALTERNATIVE PRODUCTS: THE MEMBRANE ISOFORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOPLASMIC ISOFORMS, BETA, GAMMA AND DELTA ARE GENERATED |
ALTERNATIVE SPLICING.
TISSUE SPECIFICITY: EXPRESSED IN A WIDE VARIETY OF TISSUES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: ACCELERATES PROGRAMMED CELL DEATH BY ANTAGONIZING THE APOPTOSIS REPRESSOR BCL-2 OR 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MDGSGEQPRGGGPTSSEQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           heterodimerizes in
                                                                                                                                                                                                                                    HGNC:959; BAX.
                                         150
218
                                                                                               Alternative
                                                                                                                                                                                                                                                               в47538.
                                                                                                                                                                                                                                                  1MAZ
                                          ΑĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PubMed=8358790;
                                         165
24220
                                                                   73
118
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
                                                                                                                                                                                                                                                                                                                                                 institutions as long
                                                                                                                                                                                             Bc12_BH
                                                                                                                                                                                                          BCL2_family.
                                                                   e splicing.
3 BH3.
8 BH1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19
                                          MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vivo with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Korsmeyer
                                                                                                                                                                                                                                                                                                                                     is not removed
 Score 67;
Pred. No.
                            BH2.
; F69DCD70F960192F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a conserved homolog, Bax,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            n update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S.J.;
                                                                                                                                                                                                                                                                                                                                              There are no restrictions ng as its content is in
              DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AA
                                                                                                                                                                                                                                                                                                                                  Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              beta
               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALPHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOGETHER WITH BCL-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BINDING
                                                                                                                                                                                                                                                                                                                                  bу
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AND THE THREE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADENOVIRUS
                                                                                                                                                                                                                                                                                                                                     and
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OT
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QY DЬ

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RESULT 15
AAB74126
ID AAB74126
ID AAB74126
AC AAB7
XX Huma
XX Huma
XX M Autt
KW Apop
KW Autt
KW Apop
KW Autt
XX III---
PR 26---
PR 26--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-NOV-1994;
26-AUG-1993;
25-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to a method of modulating apoptosis of a cell. The method comprises administrating to the cell an agent, comprising a BHI domain or BH2 domain, capable of modulating formation c at least one complex selected from bcl-2:bcl-2 complexes, bcl-XL:bcl-XL complexes, bcl-2:associated x protein (Bax):Bax complexes, bcl-2:Bax complexes or bcl-XL:Bax complexes. Modulating apoptosis is especially useful in cancer therapy, and treating autoimmunity, immunodeficiency diseases (e.g. AIDS), reperfusion injury, myocardial infarction, stroke, traumatic brain injury, neurodegenerative diseases, aging, ischaemia, toxemia, infection, hepatitis, transplant rejection, and tymphoproliferative diseases. The present sequence is human Bax, which
                                                                                                                                                                                                                                                                           Modulating apoptosis of a cell, useful in maintaining homeostasis adult tissues, or treating proliferative or autoimmune diseases, comprises administering a bcl-2 polypeptide that interacts with a bcl-2 associated X protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; Bax; cytostatic; immunosuppressive; immunostimulant; infection; apoptosis modulator; bcl-2 associated x protein; cancer therapy; AIDS; autoimmunity; immunodeficiency; reperfusion injury; stroke; aging; myocardial infarction; traumatic brain injury; ischaemia; neurodegenerative diseases; hepatitis; transplant rejection; toxemia;
                                                   The present invention relates to a method of modulating apoptosis of a cell. The method comprises administrating to the cell an agent, comprising a BH1 domain or BH2 domain, capable of modulating formation at least one complex selected from bcl-2:bcl-2 complexes, bcl-XL:bcl-XL
                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI;
                                                                                                                                                                                                                 Example
                            complexes,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Korsmeyer SJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US6184202-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB74126 standard; Protein; 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-FEB-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               lymphoproliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                     2001-256104/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bc1-2
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20; Conserv
                                                                                                                                                                                                                 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in the method of the present invention
                            bc1-2
                                                                                                                                                                                                                 Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             192
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             associated X protein (Bax) #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ω,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94US-0337646.
93US-0112208.
94US-0248819.
                                                                                                                                                                                                                 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97us-0927326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         105pp;
                         associated
                                                                                                                                                                                                              105pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
                                                                                                                                                                                                              English.
                            x protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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Pred. No. 1.6e-07;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ŗ
                            (Bax):Bax complexes,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
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88888888%&
B
                                γQ
                                                                                   Query Match
Best Local
                                                                   Matches
                                                                                                                                                                                                                       complexes or bcl-XL:Bax complexes. Modulating apoptosis is especially useful in cancer therapy, and treating autoimmunity, immunodeficiency diseases (e.g. AIDS), reperfusion injury, myocardial infarction, strol traumatic brain injury, neurodegenerative diseases, aging, ischaemia, toxemia, infection, hepatitis, transplant rejection, and
                                                                                                                                                                    lymphoproliferative diseases. The present sequence is human Bax, which was used in a sequence alignment in the present invention, with murine Bax (AAB74125), human Bcl-2 (AAB74127) and murine Bcl-2 (AAB74128).
                                                                                                                                       Sequence
                1 MDGSGEQPRGGGPTSSEQIM
MDGSGEQPRGGGPTSSEQIM 20
                                                                   . Similarity
20; Conserv
                                                                                                                                       192 AA;
                                                                   Conservative
                                                                                 100.0%;
                                20
                                                                   0;
                                                                                     Pred. No.
                                                                                                   Score
                                                                   Mismatches
                                                                                 106; DB 22;
No. 1.6e-07;
                                                                   Indels
                                                                                                Length 192;
                                                                   0,
                                                                   Gaps
                                                                                                                                                                                                                                                             stroke,
                                                                   0;
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Search completed: January Job time: 31.7949 secs 7, 2003, 12:29:28

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RESULT 13
AAY69202
ID AAY69
XX AAY69
AC CAACA
AC
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Best Local S
Modulating apoptosis in transport of cytochrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pro-apoptotic peptide; Bax; BH3 domain; channel inducer; transport; cytochrome C transport; mitochondria; apoptosis; ion selectivity; anti-apoptotic BCL-2 family member; neoplasia; Epstein Barr virus; African swine fever virus; adenovirus; lymphoproliferative condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence is a human BAX alpha protein, a pro-apoptotic protein which is a member of BCL-2 family of proteins that are involved in regulation of neuronal programmed cell death. The patent discloses specific truncated proteins derived from BAX alpha which inhibit neuronal apoptosis induced by trophic factor deprivation. The anti-apoptotic truncated BAX (tBAX) proteins include tBAX70, tBAX78 and their mutants. These proteins contain the N-terminal region and at least a portion of the BH3 domain of BAX alpha and lack the BH1, BH2 and C-terminal transmembrane domains. The tBAX protein lacking only the transmentane domain has been shown to have anti-apoptotic activity. The tBAX proteins are used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
                                                                             WPI; 2000-195193/17.
                                                                                                                                                                                (UNIW ) UNIV
                                                                                                                                                                                                                                     31-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                              WO200006187-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer; arthritis; Crohn's disease; inflammation; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY69202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY69202 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-JUL-1999;
                                                                                                                                                                                                                                                                                                                                        10-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              reperfusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (UNIW ) UNIV WASHINGTON
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                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000-339513/29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                SJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            192 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page 35-36;
                                                                                                                                                                                   WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Easton R;
                                                                                                                                Schlesinger
                                                                                                                                                                                                                                     98US-0127048
                                                                                                                                                                                                                                                                                     99WO-US17276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              death;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         senescence;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptide; 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of the human Bax protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
100.0%;
  cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              infertility;
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                                                                                                                                PH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                          by modulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      neurodegenerative disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.6e-07;
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                          channel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21;
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                          ion
                          selectivity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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RESULT 14
AAB74121
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                               10-NOV-1994;
26-AUG-1993;
25-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence represents the Bax protein. A pro-apoptotic peptide can be derived from the BH3 domain. The peptide is an inducer of formation of a channel for transport of cytochrome C out of mitochondria. The peptide induces apoptosis in a cell. The peptide changes the ion selectivity of an anti-apoptotic BCL-2 family member from potassium selective to chloride selective. The specification also describes inhibitors of apoptosis in cells. The inhibitors and inducers can be used to treat patients, preferably humans with a condition mediated by excessive down-regulation of apoptosis, especially conditions chosen from neoplasias, diseases caused by Epstein Barr virus, African swine fever virus and adenovirus, lymphoproliferative conditions, cancer, arthritis, Crohn's disease, inflammation and autoimmune disease or a condition mediated by
         Modulating apoptosis of a cell, useful in maintaining homeostasis adult tissues, or treating proliferative or autoimmune diseases, comprises administering a bcl-2 polypeptide that interacts with a bcl-2 associated X protein
                                                                                      WPI; 2001-256104/26
N-PSDB; AAF77704.
                                                                                                                                                                                                                                                                                                                                                                                                apoptosis modulator; bcl-2 associated X protein; cancer therapy; AIDS; autoimmunity; immunodeficiency; reperfusion injury; stroke; aging; myocardial infarction; traumatic brain injury; ischaemia; neurodegenerative diseases; hepatitis; transplant rejection; toxemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               neurodegenerative disease, ischemic and reperfusion cell death, infertility and wounds. The methods can also be used to identif
                                                                                                                                                                                                                                                                                        06-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; Bax;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 apoptosis-modulating
                                                                                                                                  Korsmeyer
                                                                                                                                                                (UNIW ) UNIV
                                                                                                                                                                                                                                                           11-SEP-1997;
                                                                                                                                                                                                                                                                                                                        US6184202-B1
                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB74121 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              excessive apoptosis, especially immunodeficiency diseases, senescence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page
                                                                                                                                                                                                                                                                                                                                                                                 lymphoproliferative disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \vdash
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                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          bcl-2 associated X protein (Bax) #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                    SJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    192
                                                                                                                                                                                                                                                                                                                                                                                                                                                            cytostatic; immunosuppressive; immunostimulant; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                  WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                             94US-0337646.
93US-0112208.
94US-0248819.
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                                                                                                                                                                                                                                                           97US-0927326
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 106; DB 21;
Pred. No. 1.6e-07;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                inducer
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for

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RESULT 11
AAW87809
ID AAW878
AC AAW87
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
      10-NOV-1994;
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                                                                                                                                                                                                                          A human
                                                                                                                                                                                                                                                               10-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
                                           05-JAN-1999
                                                                                   US5856171-A
                                                                                                                                                                                                                                                                                                                                            AAW87809 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA composition encoding bcl-2 two-hybrid and reporter system identifying modulators of bcl-2 function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB;
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                                                                                                                                                                bcl-2-related
                                                                                                                                                                                                                                                                                                       AAW87809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UNIW ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-NOV-1994;
26-AUG-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-NOV-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; Bcl-2 associated protein; Bbcl-2-related function; apoptosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1999-105119/09
                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                            MDGSGEQPRGGGPTSSEQIM 20
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                                                                                                                                                                                  Bc1-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                                                                                                                                                          Bc1-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Columns 71-74; 105pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAV84005
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                              associated protein; Bax; bcl-2; antibody; modulator;
                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WASHINGTON
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                                                                                                                                                                                                                        associated
                                                                                                                                                             function; apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94US-0337646.
93US-0112208.
94US-0248819.
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    94US-0337646
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                                                                                                                                                                                                                                                                                                                                          Protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 0%;
                                                                                                                                                                                                                      protein designated Bax
                                                                                                                                                                                                                                                                                                                                            192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 106; DB 20;
Pred. No. 1.6e-07;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
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AAY70827
DЬ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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26-AUG-1993;
25-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence represents a human Bcl-2 associated protein designated Bax. The Bax protein is used in a composition which comprises a bcl-2 family member polypeptide, a naturally occurring Bax polypeptide and an antibody that binds to the Bax polypeptide. The composition is used to identify modulators of bcl-2-related function, e.g. substances that inhibit binding of Bax to bcl-2, which would be potentially useful as drugs for modulating
                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           neuron; anti-apoptotic;
apoptosis; treatment; no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human
22-OCT-1998;
                                       22-OCT-1999;
                                                                                                                    WO200023083-A1.
                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                               Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                            spinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY70827;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example
                                                                              27-APR-2000
                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-105119/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Korsmeyer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA composition encoding bcl-2 two-hybrid identifying modulators of bcl-2 function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BAX alpha protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    truncated BAX protein; tBAX; BAX alpha; BCL-2 family; head trauma
                                                                                                                                                                                                                                                                                                                                                                                                                                                            cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7; Fig 7; 105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LS
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ti-apoptotic; cerebroprotective; neuroprotective; neuroactive; treatment; neurodegenerative disease; peripheral nerve injury; d injury; stroke; pro-apoptotic; PCD; programmed cell death.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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93US-0112208.
94US-0248819.
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                                       99WO-US24747
                                                                                                                                                                                                                                                                                                                     /label=
59..73
                                                                                                                                                                                                                    /label=
150..165
                                                                                                                                                                            /label=
169..188
                                                                                                                                                                                                                                                         /label= BH3_domain
/note= "BCL-2 Homology
98.118
                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                           /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein; 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                           Transmembrane_domain
                                                                                                                                                                                                 BH2_domain
                                                                                                                                                                                                                                      BH1_domain
                                                                                                                                                                                                                                                                                                                                        N-terminal_region
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Pred No. 1.6e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                              domain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 occurring
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Gaps

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MDGSGE@PRGGGPTSSEQIM 20

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RESULT 8
AA74150
AA74150
AA74150
AA74150
AA74150
AA741
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Best Loc
Matches
                                                                               Query Match
                                                                                                                                                                                                                                         Additionally, Bax can function in its movement. Additionally, Bax can function in its movement and complement wild-type p53 gene therapy, which induces a cell cycle arrest and/or apoptosis in malignant cells carrying p53 mutations. In addition, Bax overexpression could provide the apoptomatic control of the poptomatic control of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             induction of p53. Bax protein can function as a homodimer, or it can heterodimerise with other Bcl-2 gene family members such as the antiapoptotic protein Bcl-2. Heterodimerisation of Bcl-2 family members provides a means of controlling cell death via the "rheostat" model. This model suggests that the relative amounts of Bcl-2 and Bax determine the susceptibility of a cell to undergo apoptosis. If Bcl-2 is in excess, Bcl-2/Bax heterodimers predominate and cell death is inhibited. If Bax is in excess, however, Bax homodimers predominate and the cell becomes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This sequence represents human wild-type Bax protein. A naturally occurring mutant protein (AAY34149) was also isolated. Bax (Bcl-2 associated X protein) is a proapoptotic member of the Bcl-2 gene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  susceptible to apoptosis following exposure to an apoptotic stimulus. Additionally, Bax can function in its monomeric form to accelerate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bax mRNA and protein expression have been shown to increase following induction of p53. Bax protein can function as a homodimer, or it can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bax functions as a primary response gene in the p53-regulated apoptotic pathway. The Bax gene promoter has 4 p53 binding sites and the expression of Bax is upregulated at the transcriptional level by p53, and the promoter has a primary response to the p53 primary for the p53 primary function of Bax is upregulated at the transcriptional level by p53, and p53 primary functions are primary functions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New adenovirus vectors, used for killing cells and for treating cancers -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-551404/46.
N-PSDB; AAZ19764.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       McDonnell TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-MAR-1998;
                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Apoptosis; adenovirus; dimeric;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human wild-type Bax protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-NOV-1999
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                                       Local
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Similarity
20; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Roth JA;
llarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 149-150; 151pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0077541
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    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fang B,
                                   Score 106; DB 20;
Pred. No. 1.6e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ā
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    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bruckheimer EM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            domain essential for dimerisation"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   p53; cancer; gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       inhibiting
                                                                               Length 192;
Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sarkiss MG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       growth
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        by p53,
Gaps
                                                                                                                                                                                                                                                                                                                                                                                       a G1
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RESULT 10
AAW87804
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                                                                                                                                                                                   Matches
                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                           This sequence represents the human BAX protein. The invention relates to a bol homology domain 3 (BH3 domain), derived from a proapoptotic member of the BCL-2 family. The BH3 polypeptide can be used in a method for promoting apoptosis in a target cell, especially where the cell is a cancer cell a virus infected cell or an autoantibody producing cell. The BH3 polypeptide can be used in therapeutic compositions for treating disease including cancer, other lymphoproliferative conditions, arthritis, inflammation, and autoimmune diseases, which may result from the down regulation of cell death
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BH3 domain; cell death agonist; bcl homology domain; BCL-2 family; apoptosis promoter; cancer cell; virus infected cell; inflammation; autoantibody producing cell; cancer; lymphoproliferative condition; arthritis; autoimmune disease; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-OCT-1997;
26-SEP-1997;
                                                      AAW87804;
                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig
                                                                                                                                                                                                                                                                                                                                                                                                  Bcl homology domain 3 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human BAX protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY05435;
                                                                             AAW87804 standard; Protein; 192
                                                                                                                                                                                                                                                                                                                                                                                                                           WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W09916787-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY05435 standard; peptide;
                                                                                                                                                                                                                                                    regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (UNIW ) UNIV WASHINGTON
                                                                                                                                   MDGSGEQPRGGGPTSSEQIM
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                                                                                                                                                                                   20;
                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                             192
                                                                                                                                                                                   Conservative
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97US-0060133
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US19765
                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                             104pp;
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                                                                                                                                                                                                                                                                                                                                                                             English.
                                                                                                                                                                                 0;
                                                                                                                                                                                 Score 106; DB 20;
Pred. No. 1.6e-07;
; Mismatches 0;
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                                                                                                                                                                                   Indels
                                                                                                                                                                                                       Length 192;
                                                                                                                                                                                   0
                                                                                                                                                                                 Gaps
                                                                                                                                                                                   0;
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A human Bcl-2 associated protein

designated

10-MAR-1999

(first entry)

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В
                              οy
                                                                Matches
                                                                                                                                                                                                                     antiapoptotic protein Bcl-2. Heterodimerisation of Bcl-2 family members provides a means of controlling cell death via the "rheostat" model. This model suggests that the relative amounts of Bcl-2 and Bax determine the susceptibility of a cell to undergo apoptosis. If Bcl-2 is in excess, Bcl-2/Bax heterodimers predominate and cell death is inhibited. If Bax is in excess, however, Bax homodimers predominate and the cell becomes susceptible to apoptosis following exposure to an apoptotic stimulus. Additionally, Bax can function in its monomeric form to accelerate cell death. Use of novel adenoviral vectors containing this Bax gene may
                                                                                                                                                                                                                                                                                                                                                                       Bax functions as a primary response gene in the p53-regulated apoptotic pathway. The Bax gene promoter has 4 p53 binding sites and the expression of Bax is upregulated at the transcriptional level by p53, ar Bax mRNA and protein expression have been shown to increase following induction of p53. Bax protein can function as a homodimer, or it can heterodimerise with other Bc1-2 gene family members such as the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This sequence represents a human truncated Bax protein. The cDNA contains a single base deletion relative to the wild-type (AAZ19764 causing a frameshift which leads to translation of a premature stop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
Domain
                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 26; Page 148-149; 151pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        associated X protein) is a proapoptotic member of the Bcl-2 gene family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       codon, resulting in a truncated protein. However, the domai for its function is still present in the truncated protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New adenovirus vectors, used for killing or inhibiting the growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        McDonnell TJ,
Ji L, Roth JA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09946371-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human truncated Bax protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY34149 standard; Protein; 131 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TEXA ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-MAR-1998
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                1 MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                           ent and complement wild-type p53 gene therapy, which induces a G1 cycle arrest and/or apoptosis in malignant cells carrying p53 tions. In addition, Bax overexpression could provide the apoptotic ct of p53 without the need for p53 itself.
MDGSGEQPRGGGPTSSEQIM
                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 adenovirus; dimeric; Bcl-2; p53; cancer; gene therapy
                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Swisher SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0077541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US05359
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Portion of BH3 domain essential
                                                                            100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cancers
                                                                            . 0%;
                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fang
                                                             Score 106; DB 20;
Pred. No. 1.1e-07;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bruckheimer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        However, the domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EM,
                                                              Indels
                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sarkiss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for dimerisation"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AAZ19764),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         n responsible
Bax (Bcl-2
                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
M
                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of
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RESULT 7
AAR71406
                                                                                                                                                                                                                                                                                                                                                                                                                                            of which are given in AAR71404-05 respectively. bcl-2 is encoded by a proto-oncogene and is capable of inhibiting apoptosis in many hematopoietic cell systems. bcl-2 is a 26 kD membrane-associated cytoplasmic protein and is thought to function by enhancing the survival of hematopoietic cells of B and T origins rather than directly promoting proliferation of these cell types. bcl-2 has not been shown to directly promote cell cycle progression nor does it necessarily alter the dose reponse to limiting concentrations of IL-3. bcl-2 has been shown to form heterodimers with this 21 kD protein, Bax. Overexpressed Bax accelerates apoptotic cell death induced by cytokine deprivation in an IL-3 dependent cell line, and it also acts to counter the death repressor activity of bcl-2. Therefore, the ratio between bcl-2 and Bax determines
                                                                                                    cell survival or death following an apoptotic stimulus. The invention gives a mutant form of bcl-2 in which there is at least one amino acid substitution or deletion in the BHI or BH2 domains. This makes the mutant protein substantially incapable of binding Bax and/or incapable of death repressor activity. Down regulation of bcl-2 is useful in cancer therapy, controlling hyperplasias and eliminating self-reactive clones in autoimmunity by favouring death effector molecules. Up regulating bcl-2is beneficial in treatment and diagnosis of immunodeficiency diseases, including AIDS and neurodegenerative and ischaemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         apoptosis; membrane-associated cytoplasmic protein; B cell; T cel proliferation; cell cycle progression; Bax; apoptotic cell death; apoptosis; cytokine; death repressor; BH1; BH2; cancer therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR71406 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    associated with the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This sequence represents human Bax protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Fig 3; 133pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Methods for producing and identifying mutant bcl-2 proteins that lack death repressor activity and/or lacks binding to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09505750-A
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Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-AUG-1993;
25-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-AUG-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human Bax protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ischaemic cell death.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hyperplasia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bcl-2; alpha; beta; proto-oncogene; hematopoietic cell line;
sis; membrane-associated cytoplasmic protein; B cell; T cell;
192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93US-0112208
94US-0248819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94WO-US09701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human bcl-2 alpha and beta proteins, the sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease; AIDS; neurodegeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bax is a protein which is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Вах
                                                                                                                    ischaemic
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Query Match Best Local Matches

Similarity 20; Conserv

Conservative

0;

Mismatches

Indels Length

0,

Gaps

0

100.0%;

Score 106; DB 16; Pred. No. 1.6e-07;

Db

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MDGSGEQPRGGGPTSSEQIM

20

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0818
                                                                                               The present sequence is a specifically claimed truncated BAX protein tBAX78 which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of first 78 amino acids of human BAX alpha, that includes the N-terminal region and BH3 domain. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury, spinal cord injury, head trauma and stroke.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury; spinal cord injury; head trauma; stroke.
                                                                                                                                                                                                                                              Key
                                                                            Sequence
                                                                                                                                                                                                                          Claim 4; Page 33; 43pp;
                                                                                                                                                                                                                                                                                 WPI; 2000-339513/29.
                                                                                                                                                                                                                                                                                                                             (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                  22-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                        22-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                    WO200023083-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; truncated BAX protein; tBAX78; BAX alpha; BCL-2 family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY70818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human neuroprotective truncated BAX protein, tBAX78
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1 MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MDGSGEQPRGGGPTSSEQIM 20
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                                 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
20; Conserv
                                             Similarity
                                                                                                                                                                                                                                                                                                        EM,
                                                                            78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70
                                 Conservative
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                                                                                                                                                                                                                                                                                                      Easton R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "N-terminal region 59..73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
1..58
                                                                                                                                                                                                                                                                                                                                                                                                                                         /label= BH3_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein; 78
                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                          English.
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                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 106; DB 21;
Pred. No. 5.6e-08;
; Mismatches 0;
                                            Pred. No
                                                      Score 106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ā
                                 Mismatches
                             ); DB 21,
). 6.3e-08;
) 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              of BAX alpha"
                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
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                                0,
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                               Gaps
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                                0;
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RESULT 5
AAY70822
IDY 70822
IDY 31-J
XX AAY7
XX AAY7
XX Huma
XX Huma
KW apop
KW apop
KW apop
KW apop
KW apop
FFT Misc
ST Misc
FFT Ъ
                                            Q
                                                                                                 Matches
                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                              The present sequence is a specifically claimed truncated BAX protein, tBAX78 mutant (tBAX78M) which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain of human BAX alpha, and a novel C-terminal sequence of 8 amino acids not present in BAX alpha. It lacks the BH1, BH2 and C-terminal transmembrane domain bax alpha and the transmembrane domain has been shown to have anti-apoptotic activity. The present sequence is used to treat diseases associated with neuronal approach.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; truncated BAX protein; tBAX78M; BAX alpha; BCL-2 family; mutant; neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 4; Page 34; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                               apoptosis, e.g. neurodegenerative diseases, peripheral nerve injury,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; AAD00125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       spinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human neuroprotective
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                                                                                                                                                                                                                                                    spinal cord injury,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Misc-difference
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY70822;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Johnson
                                                  1 MDGSGEQPRGGGPTSSEQIM 20
MDGSGEQPRGGGPTSSEQIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000-339513/29
                                                                                                    20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cord injury; head trauma; stroke
                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EW,
                                                                                                                                                                                                        78 AA;
                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0177315
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note=
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                                                                                                                                                                                                                                                       head trauma and stroke
                                                                                                                         100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             truncated BAX protein tBAX78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "sequence not found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Wild type Ser is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Wild type Ser
                                                                                                                           0%;
20
                                                                                                 0;
                                                                                                                         Score 106;
Pred. No. 6.
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                                                                                                    Mismatches
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                                                                                                 DB 21;
.3e-08;
s 0;
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                                                                                                                                                Length
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Best L
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                                       The present sequence is a specifically claimed truncated BAX protein tBAX70 which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of first 70 amino acids of human BAX alpha, that includes the N-terminal region and a portion of the domain. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the
                                                                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a pure protein (P1) comprising a BAX polypeptide lacking an apoptotic regulation of targeting (ART) domain. P1 has cytostatic activity and can be used in the modulation of apoptosis. The polypeptides and methods from the present invention are useful for identifying compounds that modulate apoptosis which can then be used for treating cancer. The present sequence represents a human BAX peptide sequence of amino acids 1 to 20, which is used in an
                                                                                                                                                                                                                    Claim 4; Page 32; 43pp; English.
                                                                                                                                                                                                                                                                 Truncated BAX polypeptides useful for preventing for the treatment of nervous system disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            neuron; anti-apoptotic; cerebroprotective; neuroprotective; neuroactive; apoptosis; treatment; neurodegenerative disease; peripheral nerve injury;
                                                                                                                                                                                                                                                                                                                                                                                        Johnson
                           transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-APR-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human neuroprotective truncated BAX protein, tBAX70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY70816
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                                                                                                                                                                                                                                                                                                                                                                                                                                     (UNIW ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY70816 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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  present
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MDGSGEQPRGGGPTSSEQIM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                                                                                                                                                                                        EX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       from
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the present invention.
                                                                                                                                                                                                                                                                                                                                                                                      Easton
                                                                                                                                                                                                                                                                                                                                                                                                                                     WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                      domain has been shown to have anti-apoptotic activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0177315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US24747
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59..70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "BH3 domain in the of amino acids 59-73"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВАХ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label= Partial_BH3_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           head
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           trauma; stroke.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
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  to
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Pred. No. 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BAX
  diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 21;
..5e-08;
s 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    full-length BAX alpha
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  associated
                                                                                                                                                                                                                                                                                       apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
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with
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                                                                        domains of
                                                                                                                                              X protein
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Best Local
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                                   The present sequence is a specifically claimed truncated BAX protein, tBAX70 mutant (tBAX70M) which inhibits neuronal apoptosis induced by trophic factor deprivation. The protein consists of the N-terminal region and a portion of BH3 domain of human BAX alpha. It lacks the BH1, BH2 and C-terminal transmembrane domains of the full-length BAX alpha. The tBAX protein lacking only the
                                                                                                                                                                                                                                                                                                                                                                                                                                                      neuron; anti-apoptotic; cerebroprotective; neuroprotective; apoptosis; treatment; neurodegenerative disease; peripheral spinal cord injury; head trauma; stroke.
       apoptosis, e.g. neurodegenerative diseases,
                  The present sequence
                                                                                                                                                             WPI;
                                                                                                           Claim 4;
                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                   Misc-difference
                                                                                                                                                                                                                                                                                                                                                                           Domain
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                                                                                                                                                                                Johnson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human neuroprotective truncated
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                                                                                                                                                                                                                                           22-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                              Region
                nsmembrane domain has been shown to have anti-apoptotic activity present sequence is used to treat diseases associated with neuronal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDGSGEQPRGGGPTSSEQIM
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                                                                                                                                                                                EM,
                                                                                                          Page 33-34; 43pp; English.
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                                                                                                                                                                              Easton
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59..70
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Pred.
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        peripheral
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                                                                                                                                                                                                                                                                                                                                                                                     BAX
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Result
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Maximum DB seq length: 2000000000
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Perfect score:
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Listing first 45 summaries
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AAY70816
AAY70820
AAY70822
AAY70822
AAY34149
AAY341406
AAY34150
AAY34150
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Human protein SEQ	AAM78938	22	531		47.5	4 4
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	AAB74124	222	2 4	٠	65	0
	AAW87807	20	41		65	0
	AAY90735	21	19		67	38
	AAY90738	21	20		81	37
	AAU76551	23	192	•	83	36
	AAB35128	22	192	•	83	ω 5
	AAB74125	22	192	•	83	34
	AAB74122	22	192	٠	83	ω
	AAY70828	21	192		83	32
	AAW87808	20	192	78.3	83	Ω
	AAW87805	20	192		83	30
	AAY05434	20	192	•	83	29
	AAR71407	16	192	78.3	83	28
	AAY70823	21	78		83	27
	AAY70819	21	78		83	26
	AAY70821	21	70		83	25
	AAY70817	21	70	•	83	24
	AAY90737	21	20	78.3	83	23
	AAY78512	21	197	95.3	101	22
	AAY39263	20	331	٠	103	21
	AAW10688	18	221		106	20
	AAU76552	23	192	100.0	106	19
	AAB50539	22	192		106	18
	AAB35129	22	192		106	17
	AAB48286	22	192		106	16
	AAB74126	22	192	•	106	15
	AAB74121	22	192	100.0	106	14
	AAY69202	21	192	•	106	13
	80	21	192	0.	106	12
	AAW87809	20	192	100.0	106	Ξ

# ALIGNMENTS

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Shore GC,
                                                                         05-OCT-1998;
                                                                                       05-OCT-1999;
                                                                                                                                            Apoptotic regulation of targeting domain; ART domain; BAX: apoptosis; cell death; cancer; cytostatic.
                                                                                                                                                                                            AAY90736;
                                 WPI; 2000-303740/26
                                                                                                     13-APR-2000
                                                                                                                  WO200020446-A2
                                                                                                                               Homo sapiens
                                                                                                                                                                Human BAX amino acid sequence 1 to 20
                                                                                                                                                                               17-AUG-2000 (first entry)
                                                                                                                                                                                                        AAY90736 standard; peptide;
                                                            (UYMC-) UNIV MCGILL.
                                             Goping S;
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 ${\tt BAX}$  polypeptide lacking an ART domain, useful for identifying agents that modulate apoptosis which can then be used for treating cancer -

Example 2; Page 52; 53pp; English.

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FILE REFERENCE: ELITRA.011A
CURRENT APPLICATION NUMBER: US/09/815,242
CURRENT FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/191,078
PRIOR APPLICATION NUMBER: 60/206,848
PRIOR FILING DATE: 2000-03-21
PRIOR APPLICATION NUMBER: 60/206,848
PRIOR APPLICATION NUMBER: 60/207,727
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 60/253,625
PRIOR APPLICATION NUMBER: 60/253,625
PRIOR APPLICATION NUMBER: 60/253,625
PRIOR FILING DATE: 2000-11-27
PRIOR FILING DATE: 2000-11-27
PRIOR PILING DATE: 2000-11-27
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Query Match
Best Local Similarity
""" 8; Conserv
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                                                                                                                                                                                                                         Sequence 45406, Application US/09864761
Patent No. US20020048763A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2, Application US/09854093 Patent No. US20020151698A1 GENERAL INFORMATION:
                                                                                       APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
             FILE REFERENCE: Acomica-x-1
CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (415) 398-3
TELEX: 910 277299
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                             21 GSGLQPQGPGQGPQQQLV 38
                                                                                                                                                                                                                                                                                                                                                                                                                     3 GSGEQPRGGGPTSSEQIM 20
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MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: A-59891-1/RFT/DAV
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 781-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 08/904,234
FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: Vance, Dolly A.
REGISTRATION NUMBER: 39,054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Schreibmayer, Wolfgang
Schreibmayer, Wolfgang
Davidson, No. US20020151698Alman
TITLE OF INVENTION: DNA ENCODING INWARD RECTIFIER,
ACTIVATED, MANMALIAN POTASSIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/854,093 FILING DATE: 10-May-2001
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STREET: Four Embarcadero
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Pred. No. 1.5e+02;
Pred. No. 1.5e+02;
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APPLICANT: Yamamoto,
APPLICANT: Xu, H. Ho
TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                      GENERAL
                                                                                                                                                                                                     Sequence 5425, Application US/09815242 Patent No. US20020061569A1
                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 45406
                                                                                                                                                                                                                                                                                                                                                                                                             Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                         APPLICANT: Haselbeck, Robert APPLICANT: Ohlsen, Kari L. APPLICANT: Zyskind, Judith W. APPLICANT: Wall, Daniel
                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Annomax Sequence Listing Engine vers.
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OTHER INFORMATION: EXPRESSED IN PLACENTA,
OTHER INFORMATION: EXPRESSED IN FETAL LIVE
OTHER INFORMATION: EXPRESSED IN FETAL LIVE
OTHER INFORMATION: EXPRESSED IN BRAIN, SIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
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APPLICATION NUMBER: PCT/US01/00669
FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 09/774,203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 2000-09-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PCT/US01/00661 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 2001-01-30 APPLICATION NUMBER: US 60/234,687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US01/00670
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US01/00663 FILING DATE: 2001-01-30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: PCT/US01/00664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 60/236,359 FILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 09/608,408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US01/00666
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 09/632,366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 60/207,456
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                                                                                                                                                                                      INFORMATION:
                   INVENTION: Ident.
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                                                                                                                                                                                                                                                                                                                                                                                            Similarity 7; Conserv
                                                                       Carr, Grant
                                                                                    Trawick, John D.
                                                       Yamamoto, Robert T.
                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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                   Identification
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58.3%;
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IN FETAL LIVER, SIGNAL = 0.93
IN BRAIN, SIGNAL = 0.82
IN BONE MARROW, SIGNAL = 0.89
                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. 10;
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                   of
                     Essential Genes
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; TYPE: PRT
; ORGANISM: Mus musculus
US-10-058-820-5
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                                            CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: JP 00/159162
PRIOR FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: JP 00/280988
PRIOR FILING DATE: 2000-08-03
NUMBER: OF SEQ ID NOS: 7059
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Matches 8
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APPLICANT:
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PRIOR FILING DATE: 2001-01-26
NUMBER OF SEQ ID NOS: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/058,820 CURRENT FILING DATE: 2002-06-17 PRIOR APPLICATION NUMBER: US 60/325,651 PRIOR FILING DATE: 2001-09-28 PRIOR PLICATION NUMBER: US 60/298,963 PRIOR APPLICATION NUMBER: US 60/298,963 PRIOR FILING DATE: 2001-06-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Bogan, Jonathan S. APPLICANT: Lodish, Harvey F. TITLE OF INVENTION: Expression Cloning Method FILE REFERENCE: 0399.2025-002
                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: NAKAGAWA, SATOSHI APPLICANT: MIZOGUCHI, HIROS
                                                                                                                                                                                                                 TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                      FILE REFERENCE: 249-125
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LENGTH:
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                                 PatentIn ver.
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8; Conserv
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8; Conservative
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TATEISHI, NAOKO
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OCHIAI, KEIKO
                                                                                                                                                                                                                                                                    SENOH,
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57.1%;
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Pred. No. 6.9;
2; Mismatches
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...thes 8; Conserve
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US-09-039-927A-2
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INFORMATION FOR SEQ ID NO: 2:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           195 MDAFGENPIGNGP 207
21 GSGLQPQGPGQGPQQQLV 38
                                       3 GSGEOPRGGGPTSSEQIM 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/039,927A
FILING DATE: 16-Mar-1998
CLASSIFICATION: <Unknown>
                                                                                                                                                                                           LENGTH: 501 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: A-63098-1/RFT TELECOMMUNICATION INFORMATION: TELEPHONE: (415) 781-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 08/614,801 FILING DATE: 07-MAR-1996 ATTORNEY/AGENT INFORMATION: NAME: Trecartin, Richard F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Lester, Henry A.

Davidson, No. US20020052018Alman
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ADDRESSEE: Flehr Hohbach Test Albritton & Herbert LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: INWARD RECTIFIER, G-PROTEIN ACTIVATED,
MAMMALIAN, POTASSIUM CHANNELS AND USES THEREOF
                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 08/066,371 FILING DATE: 21-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: United States ZIP: 94111-4187
                                                                                                                                                                                                                                                                                                                                     TELEFAX: (415) 398-3249
                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 31,801
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                                                                              Conservative
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                                                                                              39.6%;
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                                                                          Score 42; DB 10; I
Pred. No. 1.5e+02;
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Pred. No. 1.2e+02;
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RESULT 13 US-09-854-093-2

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Query Match
Best Local Similarity
""" hes 8; Conserv:
                                                                 ; TYPE: PRT; ORGANISM: Drosophila US-09-119-855-11
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                                                                                                                        SEQ ID NO 11
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                                                                                                                                                  CURRENT FILING DATE: 1998-07-21 NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                             FILE REFERENCE: mni-055
CURRENT APPLICATION NUMBER: US/09/119,855
                                                                                                                                                                                                   APPLICANT: Curtis, ROYEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1999-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Rosen et al TITLE OF INVENTION: NO FILE REFERENCE: PA102
                                                                                                                                     SOFTWARE: PatentIn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: SITE
LOCATION: (1034)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION:
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LOCATION: (1013)
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LOCATION: (224
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              Conservative
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57.1%;
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                                                                                                                                                                                                                                                                                                                                                                                    Score 45; DB 10; L
Pred. No. 1.5e+02;
"""matches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   any
                         Score 45; DB 10;
Pred. No. 1.6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         any of the naturally occurring L-amino acids
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            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 naturally occurring L-amino acids
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RESULT 9
US-09-864-761-38626
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                                                         OTHER INFORMATION: E
OTHER INFORMATION: E
OTHER INFORMATION: E
OTHER INFORMATION: E
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CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
                                                                                                                                                                                                                                                                                      SOFTWARE: Annomax Sequence
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PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 2000-08-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
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                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 4911
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                                                                                                                                                                                                                           LENGTH: 41
TYPE: PRT
                                                                                                                                          OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                  FEATURE:
                                        OTHER INFORMATION:
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APPLICATION NUMBER: PCT/US01/00670
FILING DATE: 2001-01-30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: GB 24263.6 FILING DATE: 2000-10-04 APPLICATION NUMBER: US 60/236,359 FILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 09/774,203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US01/00663 FILING DATE: 2001-01-30
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                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US (FILING DATE: 2000-06-30
                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 2000-09-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2001-01-30 APPLICATION NUMBER: PCT/US01/00661
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INFORMATION: INFORMATION:
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Chen, Wensheng
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                                                     : MAP TO AC000053.1
: EXPRESSED IN PLACE:
: EXPRESSED IN HELA,
: EXPRESSED IN HEART
: EXPRESSED IN FETAL
: EXPRESSED IN ADULT
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IN HELA, SIGN
            N FETAL LIVER, SIGNAL = 1
N ADULT LIVER, SIGNAL = 1
N LUNG, SIGNAL = 1.7
N BRAIN, SIGNAL = 2
                                                                                               HELA, SIGNAL = 1.8
HEART, SIGNAL = 1.
BONE MARROW, SIGNAL
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; ORGANISM: Mus musculus US-09-876-204-4
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-033-525-2
                                       US-09-876-204-5
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LENGTH: 20
TYPE: PRT
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Patent No. US20020052316A1
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   Query Match
                                                                                                            SEQ ID NO 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 97.3
Best Local Similarity 95.0
Matches 19; Conservative
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SEQ ID NO 2
                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR FILING DATE: 1998-10-05
NUMBER OF SEO/ID NOS: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-66-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
                                                                                                                                                                                                                                APPLICANT: GORDON C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011101
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CURRENT FILING DATE: 1998-03-02
NUMBER OF SEQ ID NOS: 10
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                                                                                                                             SOFTWARE: FastSEQ for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: FastSEQ for Windows Version 4.0
                                               TYPE: PRT
ORGANISM: Rattus norvegicus
                                                                                           LENGTH:
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                                                                                                                           Windows Version 4.0
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95.0%;
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85.0%;
   76.48;
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Pred. No.
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Pred. No. 8.5e-07;
   Score
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 81;
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No. 2.3e-05;
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Length
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US-09-876-204-1
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APPLICANT: GORIGON: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR APPLICATION WINDER: 09/166,028
PRIOR FILING DATE: 1998-10-05
NUMBER: OF SEO ID NOS: 7
                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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                                                                                                                                                                   SEQ ID NO 1634
LENGTH: 88
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Best Local
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Matches 16; Conserv
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                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/925,301
CURRENT FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/US00/05882
PRIOR FILING DATE: 2000-03-08
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR FILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 1694
                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Rosen et al. TITLE OF INVENTION: Nucleic Acids, Proteins FILE REFERENCE: PAl06
                                                                                                                                                                                                         SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
OTHER INFORMATION: Synthetic based on consensus sequence of Homo
OTHER INFORMATION: sapiens, Mus musculus, and Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Xaa at 6 can be E or D; OTHER INFORMATION: Xaa at 8 can be L or P; OTHER INFORMATION: Xaa at 10 can be S or G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence
                 NAME/KEY: SITE LOCATION: (88)
                                                     LOCATION: (82)
OTHER INFORMATION:
                                                                                        NAME/KEY: SITE
                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                   TYPE: PRT
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OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 73.7 nes 14; Conservative
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73.7%;
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1; Mismatches 3;
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                                                     the naturally occurring
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Post-processing: Minimum Match 0%
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Listing first 45 summaries
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Maximum DB seq length: 2000000000
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Match
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/cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
00 /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
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/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
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0 US-09-925-299-911

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0 US-09-864-761-38626

US-10-058-820-5

US-09-738-626-5681

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0 US-09-815-242-1307
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Sequence 3, Appli
Sequence 4, Appli
Sequence 5, Appli
Sequence 1634, Appli
Sequence 1634, Appli
Sequence 11, Appli
Sequence 311, Appli
Sequence 5, Appli
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Sequence 2, Appli
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Sequence 45406, A
Sequence 12619, A
Sequence 12619, A
Sequence 12907, A
Sequence 12907, A
Sequence 61, Appl
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APPLICANT:
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                 APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                          Matches
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TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: $0013/011001

CURRENT APPLICATION NUMBER: US/09/876,204

CURRENT FILING DATE: 2001-06-06

PRIOR APPLICATION NUMBER: 09/166,028

PRIOR APPLICATION NUMBER: 09/166,028

PRIOR APPLICATION NUMBER: 09/166,028

PRIOR FILING DATE: 1998-10-05

NUMBER OF SEQ ID NOS: 7
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### ALIGNMENTS

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; TYPE: PRT; ORGANISM: Homo sapiens US-09-876-204-3
                                                                                                           Sequence 2, Application US/09033525 Patent No. US20020090374A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3
                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                       1 MDGSGEQPRGGGPTSSEQIM
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      INVENTION:
                                                 Yarkoni, Shai
Ben-Yehudah, Ah
Azar, Yehudith
Aqeilan, Rami
Belotstotsky, Ruth
Lorberboum-Galski, Haya
VENTION: CHIMERIC PROTEINS WITH CELL-TARGETING
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RA MEDIINE-9312795; PubMed-1478667;

RA GTOSZ M.D., Woomack J.E., Skow L.C.;

RA GTOSZ M.D. Woomack J.E., Skow L.C.;

RT "Syntenic conservation of HSP70 genes in cattle and humans.";

RI Genomics 14:863-868(1992).

C -!- FUNCTION: IN COOPERATION WITH OTHER CHAPERONES, HSP70S STABILIZE

C PREEXISTENT PROTEINS AGAINST AGGREGATION AND MEDIATE THE FOLDING

C PREMEY TRANSLATED POLYPEPTIDES IN THE CYTOSOL AS WEIL AS WITHIN

C OF NEWLY TRANSLATED POLYPEPTIDES IN ALL THESE PROCESSES

C ORGANELLES: THESE CHAPERONES PARTICIPATE IN ALL THESE PROCESSES

C ORGANELLES: THESE CHAPERONES PROTICIPATE IN ALL THESE PROCESSES

C ORGANELLES: THESE CHAPERONES PROTICIPATE IN ALL THESE PROCESSES

C OTHER PROTEINS. THEY BIND EXTENDED PROTIDES DURING TRANSLATION

C OTHER PROTEINS. THEY BIND EXTENDED PROTIDES DURING TRANSLATION

C HYDROPHOBIC CHARACTER EXPOSED BY POLYPEPTIDES DURING TRANSLATION

C AND MEMBRANE TRANSLOCATION, OR FOLLOWING STRESS-INDUCED DAMAGE.

C -!- SIMILARITY: BELONGS TO THE HEAT SHOCK PROTEIN 70 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 42.18; Matches 8; Conservative
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p34933;
01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last seq
15-DEC-1998 (Rel. 37, Last ann
Heat shock 70 kDa protein 3.
HSP70-3.
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SEQUENCE
                                                                                                                                                                                                                                          PRINTS; PR00301; HEATSHOCK70.

ProDom; PD000089; HSp70; 1.

PROSITE; PS000297; HSp70_1; 1.

PROSITE; PS000329; HSp70_2; 1.

PROSITE; PS000329; HSp70_3; 1.

ATP-binding; Chaperone; Heat shock; Multigene family.

ATP-binding; Chaperone; House, 01ACA20600C9322F CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00012; HSP70;
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615 GGGGSGASGGPTIEE 629
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                                                                                                                                                       Score 37; DB 1; Length 631; Pred. No. 26;
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T -> S (IN REF. 2 AND 3).
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Search completed: January 7, 2003, 12:29:50

Job time : 9.30769 secs

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( PIR; S38111; S38111.

SGD; S0001747; GAP1.

SGD; TOO; IPRO02293;

TOO; TOO 4840;
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P08395; P7779
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InterPro; IPR004840; A
InterPro; IPR004841; F
InterPro; IPR004762; Y
                                                                                                                                                               SEQUENCE FROM N.A. Signature of the MEDLINE-86250892; PubMed=3522590; MEDLINE-86250892; PubMed=3522590; Mizush T.A. Suzuki T., Suzuki M., Mizush "Molecular cloning and sequencing of the characterization of the encoded protease peptidase, of Escherichia coli."; J. Biol. Chem. 261:9405-9411(1986).
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                                     Gregor J., Da
Mau B., Shao
                                                   MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, Bloc
Riley M., Collado-Vides J., Glasner
Gregor J., Davis N.W., Kirkpatrick H
                                                                                                                    SEQUENCE FROM
STRAIN=K12 / N
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Bacteria; Proteobacteria;
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Science 266:1380-1383(1994).
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                                        Cerrutti L., Lowe T., McCombie W.R., Paulsen I., Pot
Shpakovski G.V., Ussery D., Barrell B.G., Nurse P.;
"The genome sequence of Schizosaccharomyces pombe.";
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16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Putative amino-acid permease C359.03c.
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Pfam: PF00082; Peptidase_S8; 1.

PRINTS; PR00723; SUBTILISIN.

PROSITE; PS00136; SUBTILASE_ASP; 1.

PROSITE; PS00137; SUBTILASE_HIS; 1.

PROSITE; PS00138; SUBTILASE_SER; 1.
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                                      This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restr
                                                                                         Urrestarazu L.A., Jauniaux J.-C.;
Submilted (MAR-1994) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: PERMEASE FOR VARIOUS AMINO ACIDS AS WELL AS
-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- SIMILARITY: BELONGS TO THE AMINO ACID PERMEASE FAMILY.
                                                                                                                                                                                               bakers yeast amino acid repression.";
                                                                                                                                                                                                                       "GAP1, the general amino acid permease gene of Saccharomyces cerevisiae. Nucleotide sequence, protein similarity with the
                                                                                                                                                                                                                                                                                                  Saccharomycetales;
NCBI_TaxID=4932;
                                                                                                                                                                                                                                                                                                                                                      General amino-acid permease GAP1 OR YKR039W.
                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1990 (Rel. 16, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by an
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                                                                                                                                                                                                                                                             MEDLINE-90306009;
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                                                                                                                                                                                                                                                                                                                              Eukaryota;
                                                                                                                                                                                                                                                                                                                                          Saccharomyces cerevisiae (Baker's yeast)
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                                                                                                                                                                                                                                                  Jauniaux J.-C., Grenson M.;
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    SUBCELLULAR LOCATION: Integral membrane protein (Potential).
    SIMILARITY: BELONGS TO THE AMINO ACID PERMEASE FAMILY.

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non-profit institutions as long and this statement is not removed requires a license agreement (See
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IPR004841; Permease.
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53259
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                                                                                                                                                                                                                                                                                                               Saccharomycetaceae;
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53.8%;
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POTENTIAL.
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POTENTIAL.
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                 not removed
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  (See http://www.isb-sib.
                                                                                                                                                                                                                                                                                                                                                                               update)
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                                          restrictions on
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RESULT 10

XYLC_PSEPU
ID XYLC_PA 3503
DT 01-NOV
DT 15-JUL
DE Benzal
GN XYLC.
OS PSEUdo
OC PASUDO
OC Bacter
OC Bacter
OC PSEUdo
OC NCBI_T
RN [1]
RP SEQUEN
RX MEDLIN
RA Inoue
RT "Over1
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Best Local
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P43503;
01-NOV-1995
01-NOV-1995
15-JUL-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goffeau A., Cadieu E., Dreano S., Gloux S., Lelaure V., Mottier S., Galibert F., Aves S.J., Xiang Z., Hunt C., Moore K., Hurst S.M., Lucas M., Rochet M., Gaillardin C., Tallada V.A., Garzon A., Thode G Daga R.R., Cruzado L., Jimenez J., Sanchez M., del Rey F., Benito J., Dominguez A., Revuelta J.L., Moreno S., Armstrong J., Forsburg S.L., Cerrutti L., Lowe T., McCombie W.R., Paulsen I., Potashkin J., Shpakovski G.V., Ussery D., Barrell B.G., Nurse P., "The genome sequence of Schizosaccharomyces pombe.";
Nature 415:871-880(2002).

11- FUNCTION: PHP2 IS A GLOBAL REGULATOR OF RESPIRATORY FUNCTIONS IN
       PLASMID=TOL pww0;

MEDLINE=95173094; PubMed=7868591;

Inoue J., Shaw J.P., Rekik M., Ha

"Overlapping substrate specificit
                                                                                                                    Plasmid TOL pww0, and Plas
Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro: IPR001289; TF_CBFB.
Pfam: PF00045; CBFB.NFYA: 1.
PRINTS: PR00616; CCAATSCUBUNTB.
PRIDDom: PD003860; TF_CBFB: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PIR; A39605; A39605. TRANSFAC; T00348; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        use by non-profit modified and this st
                                                               SEQUENCE FROM N.A.,
                                                                                                                                                    Pseudomonas putida.
                                                                                                                                                                                 Benzaldehyde
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                                                                                            NCBI_TaxID=303;
                                                                                                             Pseudomonas
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nes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                           1 MDGSGXXXXXGGPTSS 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: PHP2 IS A GLOBAL REGULATOR OF RESPIRATORY FUNCTIONS YEAST CELLS. IT BELONGS TO A COMPLEX THAT BINDS TO THE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSPORT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SM00521; CBF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             opean Bioinformatics Institute. There are no rest on non-profit institutions as as its content and and this statement is not removed. Usage by an is requires a license agreement (See http://www.isblanemail to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PS00686; CBFB_NFYA; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                               44
224
334 AA;
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(Rel. 32, Last sequence update)
(Rel. 38, Last annotation updat
a Abhydrogenase [NAD+] (EC 1.2.1
                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                         STANDARD;
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43.88;
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      skik M., Harayama
specificities of
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                                                                                                                         gamma subdivision;
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BY SIMILARITY.
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1.2.1.28)
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    S.;
benzaldehyde dehydrogenase
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Best Local
                                                                                                                                                                                                                          P29140;
01-DEC-1992 (
01-DEC-1992 (
15-JUN-2002 (
                                                                        SEQUENCE FROM N.A.
STRAIN=221 / ATCC 21522 / JCM 9139 / DSM 2512;
Kato C., Nakano Y., Yamamoto M., Horikoshi K.;
Submitted (MAR-1992) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            uenyurogenases from the benzyl alcohol and mandelate pathways Acinetobacter calcoaceticus and from the TOL-plasmid-encoded t pathway in Pseudomonas putida. N-terminal amino acid sequences acid compositions and immunological cross-reactions."; Blochem. J. 273:99-107(1991).

-i- CATALYTIC ACTIVITY: Benzaldehyde + NAD(+) + H(2)0 = benzoa NADH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL;
                 the
                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                Bacillus clausii.
Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chalmers R.M., Keen J.N., Fewson C.A.; "Comparison of benzyl alcohol dehydrogenases and benzaldehyde dehydrogenases from the benzyl alcohol and mandelate pathways
                                                                                                                                                                 NCBI_TaxID=79880;
                                                                                                                                                                                                             Intracellular alkaline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PLASMID=TOL pww53; meDLINE=91113163; PubMed=1989592;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (the xylC gene product) and 2-hydroxymuconic semialdehyde dehydrogenase (the xylG gene product) encoded by TOL plasmid pww0 Pseudomonas putida.";
                                                                                                                                                                                                                                                                                      ISP_BACCS
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                 European Bioinformatics Institute.
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D63341; BAA09661.1;
P51977; IBXS.
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PF00171; aldedh; 1.
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8; Conserv
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(Rel. 24, Last sequence up
(Rel. 41, Last annotation
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44.48;
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                 restrictions
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RESULT 7
HS70_H HS70_H
ID HS70_H
ID HS70_H
AC Q05944
DT Q1-FEB
DT Q1-FEB
DT Q1-FEB
DT Q1-FEB
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CQ HS870.
OS HS870.
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OC EUKATY
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RT GElln(RT GElln(RT GElln(RT GElln(RT GElln(RT GElln(RT GElln(RT GElln(RT GELL))
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RESULT 8
YGRM_MICRO
ID YGRM_M
AC P24621
DT 01-FEB
DT 16-OCT
DE Hypoth
OS Microm
OC Bacter
OC Actino
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RN [1]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

MEDLINE-93130891; PubMed-1483453;

Gellner K., Praetzel G., Bosch T.C.G.;

Gellner K., Praetzel G., Bosch T.C.G.;

"Cloning and expression of a heat-inducible hsp70

of Hydra which differ in their stress response.";

T. Biochem. 210:683-691(1992).
                                                                                                             01-MAR-1992 (Rel. 21, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Hypothetical protein in GRM 3'region (Fragmen Micromonospora rosea.
                       Micromonospora.
NCBI_TaxID=1878;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam: PF00012; HSP70; 1.
PRINTS; PR00301; HEATSHOCK70.
ProDom: PD000089; HSP70; 1.
PROSITE: PS00297; HSP70_1; 1.
PROSITE: PS00329; HSP70_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entre the European Bioinformatics Institute. There are no restructe by non-profit institutions as long as its content use by non-profit institutions as long as its content use by non-profit institutions as long as its content use by non-profit institutions as long as its content modified and this statement is not removed. Usage by and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
01-FEB-1995 (Rel. 31, Last annotation update)
Heat shock 70 kDa protein.
                                                                     Actinomycetales; Micromonosporineae;
                                                                                               Bacteria;
                                                                                                                                                                                                                                       P24621;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Hydridae; Hydra
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                                                                                                                                                                                                                                                          YGRM_MICRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATP-binding; Heat shock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS01036; HSP70_3; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=6085;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR001023; Hsp70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SIMILARITY: BELONGS TO THE HEAT SHOCK PROTEIN 70 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                             636
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S27004; S27004.
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                                                                                               Actinobacteria; Actinobacteria (class); Actinobacteridae;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        46; DB 1;
No. 0.51;
                                                                       Micromonosporaceae;
                                                                                                                                     (Fragment).
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Best Local
Oliver K., O'Neil S., Pearson D., Quail M.A., Rabbinowitsch E., Rutherford K., Rutter S., Saunders D., Seeger K., Sharp S., Skelton J., Simmonds M., Squares R., Squares S., Stevens K., Taylor K., Taylor R.G., Tivey A., Walsh S.V., Warren T., Whitehead S., Woodward J., Volckaert G., Aert R., Robben J., Grymonprez B., Weltjens I., Vanstreels E., Rieger M., Schaefer M., Mueller Auer S., Gabel C., Fuchs M., Fritzc C., Holzer E., Moestl D., Hilbert H., Borzym K., Langer I., Beck A., Lehrach H., Reinhardt R., Pohl T.M.,
                                                                                                                                                                                                                                              Wood V., Gwilliam R., Rajandream M.A., Lyne M., Lyne R., Stewart A., Sgouros J., Peat N., Hayles J., Baker S., Basham D., Bowman S., Browh D., Brown S., Chillingworth T., Churcher C.M., Collins M., Connor R., Cronin A., Davis P., Feltwell T., Fraser A., Gentles S., Goble A., Hamlin N., Harris D., Hidalgo J., Hodgson G., Horlsby T., Howarth S., Huckle E.J., Hunt S., Jagels K., James K., Jones M., Leather S., McDonald S., McLean J., Money P., Moule S., Mungall K., Murphy L., Niblett D., Odell C., Chilling W., March S., McLean J., McDonald S., Mungall K., Murphy L., Niblett D., Odell C., Milling W., Millett D., Odell C., Millett D., McLean J., McDonald S., Mungall K., Murphy L., Niblett D., Odell C., Millett D., Odell C., Millett D., McLean J., McLean J., McDonald S., Mungall K., Murphy L., Niblett D., Odell C., McLean J., McLe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kelemen G.H., Cundliffe E., Financsek I.; "Cloning and characterization of gentamicin-resistance genes Micromonospora purpurea and Micromonospora rosea."; Gene 98:53-60(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          essential
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Olesen J.T., Fikes J.D., Guarente L.;
"The Schizosaccharomyces pombe homolog of Saccharomyces cerevisiae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=91117227; PubMed=1899284;
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01-MAR-1992 (Rel. 21, Last sequence up
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          reveals selective and stringent conservation of the small ntial core protein domain."; Cell. Biol. 11:611-619(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGXXXXXGGPTSS
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Pred. No.
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APPLICANT: Townsend, Robert Reid
APPLICANT: White, Frost
APPLICANT: Williams, Stephen A.
APPLICANT: Williams, Stephen A.
TITLE OF INVENTION: Nucleic Acid Molecules, Polypeptides and
TITLE OF INVENTION: Uses Therefor, Including Diagnosis and Treatment of
TITLE OF INVENTION: Alzheimer's Disease
FILE REFERENCE: 2572-1-001 N2
CURRENT APPLICATION NUMBER: US/09/826,290
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: US 60/194,504
PRIOR FILING DATE: 2000-04-03
PRIOR FILING DATE: 2000-011-28
NUMBER OF SEQ ID NOS: 492
SOFTMARE: FastSEQ for Windows Version 4.0
SEQ ID NO 161
LENGTH: 14
                            APPLICANT: Kimmel, Lida H.

APPLICANT: Kimmel, Lida H.

APPLICANT: Kimmel, Lida H.

APPLICANT: Parekh, Rajesh Bhikhu

APPLICANT: Potter, David M.

APPLICANT: Rohlff, Christian

APPLICANT: Silber, B. Michael

APPLICANT: Silber, B. Michael

APPLICANT: Stiger, Thomas R.

APPLICANT: Sunderland, P. Trey

APPLICANT: Sunderland, P. Trey

APPLICANT: Townsend, Robert Reid

APPLICANT: Williams, Stephen A.

TITLE OF INVENTION: Nucleic Acid Molecules, Polypeptides and

TITLE OF INVENTION: Uses Therefor, Including Diagnosis and Treatment of

TITLE OF INVENTION USES Therefor, Including Diagnosis and Treatment of

CURRENT APPLICATION NUMBER: US/09/826,290

CURRENT APPLICATION NUMBER: US 60/194,504

PRIOR APPLICATION NUMBER: US 60/194,504

PRIOR APPLICATION NUMBER: US 60/253,647

PRIOR FILING DATE: 2000-01-28

NUMBER: US 60/253,647
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APPLICANT: Durham, L
APPLICANT: Friedman,
APPLICANT: Herath, I
APPLICANT: Kimmel, I
APPLICANT: Parekh, I
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Best Local S
Matches 5
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APPLICANT: Durham, L.Kathryn
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
NUMBER OF SEQ ID NOS: 492
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
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les 5; Conserv
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Rohlff, Christian
Silber, B. Michael
Stiger, Thomas R.
Sunderland, P. Trey
Townsend, Robert Reid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Friedman, David L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Herath, Herath Mudiyanselage Athula Chandrasiri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Friedman,
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100.0%;
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Pred. No. 30;
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Search completed: January 7, Job time: 7.69231 secs
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                                                               Query Match
Best Local Similarity 100.
The hes 5; Conservative
                                                                                                                                                                 SEQ ID NO
                                                                                                                                             TYPE: PRT
                                                                                                                                                       LENGTH:
                                         5 DGSGE 9
                                                            2 DGSGE 6
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          2003, 12:46:23
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NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:

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                                                                                                        ; ORGANISM: Medicago sativa US-09-978-698-2
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                                                                                                                                            : SEQ ID NO 2
: LENGTH: 966
: TYPE: PRT
                                                      Best
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                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/09978698 Patent No. US20020151010A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local :
                                                                   Query Match
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                                     Matches
                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/978,698
CURRENT FILING DATE: 2001-10-18
PRIOR APPLICATION NUMBER: 09/606,312
PRIOR FILING DATE: 2000-06-29
NUMBER OF SEQ ID NOS: 7
                                                                                                                                                                                                                                                                                                  APPLICANT: Rayapati, P. John
APPLICANT: Crafton, Corey M.
TITLE OF INVENTION: Regulation of Carbon Assimilation
FILE REFERENCE: 1533.0930001
                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           191 PRGGGP 196
                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
9 RGGGPT 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 08/609,187
FILING DATE: 1936-03-01
ATTORNEY/AGENT INFORMATION:
NAME: Halluin, Albert P.
REGISTRATION NUMBER: 25,227
REFERENCE/DOCKET NUMBER: 8389-028-999
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-854-3660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/850,048A FILING DATE: 07-May-2001 CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                 Similarity 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: New York COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 730 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 415-854-3694
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Pennie & Edmonds STREET: 1155 Avenue of the Americas
                                     Conservative
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                            30.0%; 5cc
100.0%; Pr
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100.0%; Pr
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                               Score 6; DB 10; L; Pred. No. 1.1e+02; 0; Mismatches 0;
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; Pred. No. 90
0; Mismatches
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o. 90;
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                                                                   Length 966;
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CURRENT APPLICATION NUMBER: US/09/192,854
CURRENT FILING DATE: 1998-11-17
EARLIER APPLICATION NUMBER: 60/066,729
EARLIER FILING DATE: 1997-11-21
NUMBER OF SEQ ID NOS: 212
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 89
LENGTH: 9
TYPE: PRT
                                                     Query Match
Best Local Similarity
Whiches 5; Conserve
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                                 Qy
                                                                                                                                                ; ORGANISM: Homo sapiens US-09-192-854-89
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                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No. US20020068276A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local 9
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                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Winter, Greg
APPLICANT: Tomlinson, Ian
TITLE OF INVENTION: Methods
FILE REFERENCE: 3789/72916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/968,561A CURRENT FILING DATE: 2001-10-01 PRIOR APPLICATION NUMBER: GB 9722131.1 PRIOR FILING DATE: 1997-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Winter, Gregory
TITLE OF INVENTION: Method to Screen Phage Display Libraries with Different Ligand
FILE REFERENCE: 8039/1073B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 2000-02-24
NUMBER OF SEQ ID NOS: 350
SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 60/065,248
PRIOR FILING DATE: 1997-11-13
PRIOR APPLICATION NUMBER: US 60/066,729
PRIOR FILING DATE: 1997-11-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Tomlinson, APPLICANT: Winter, G.
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TYPE: PRT
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nes 5; Conserv
                                   9 RGGGP 13
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3 RGGGP 7
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100.0%; Pred. No
                                                                                         25.0%; Score 5; I
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                              for Selecting Functional Peptides
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lo. 9.8e+04;
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o. 9.8e+04;
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RESULT 14 US-09-826-290-161

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US-10-067-813-17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/876,889
CURRENT FILING DATE: 2001-06-06
NUMBER OF SEQ ID NOS: 353
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 16
LENGTH: 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 16, Application US/09876889 Patent No. US20020076715A1 GENERAL INFORMATION:
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                                                                                                                                                                                                     SEQ ID NO 17
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Best Local
                                                             Matches
                                                                                              Query Match
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                                                                                                                                                                                                                                                                                 APPLICANT: Grasso, Luigi
APPLICANT: Levitt, Roy
APPLICANT: Nicolaides, Nicholas
TITLE OF INVENTION: Asthma Associated Factors as Targets for
TITLE OF INVENTION: Atopic Allergies and Related Disorders
FILE REFERENCE: 036870-5071
CURRENT APPLICATION NUMBER: US/10/067,813
CURRENT FILING DATE: 2002-02-08
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APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR OVARIAN
TITLE OF INVENTION: CANCER THERAPY AND DIAGNOSIS
FILE REFERENCE: 210121.466C3
                                                                                                                                             LENGTH: 218
TYPE: PRT
ORGANISM: R-Ras
                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/157,247
PRIOR FILING DATE: BARLIER FILING DATE: 1998-09-18
NUMBER OF SEQ 17
PRIOR FILING: 17
                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Renauld, Jean-Christophe APPLICANT: Louahed, Jamila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Benson, Darin R. APPLICANT: Lodes, Michael J.
                                                                                                                                                                                                                   SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
                                                           Local Similarity
les 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64 PTSSEQ 69
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les 6; Conserv
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                         8 PRGGGP 13
                                                           30.0%; ilarity 100.0%; Conservative
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100.0%;
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Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 6; DB 10;
Pred. No. 15;
                                                             Mismatches
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                                                                               No.
                                                                               DB 9;
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o. 25;
                                                                                          Length 218;
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                                                                                                          US-09-850-048A-2
Sequence 2. Application US/09850048A
Patent No. US20020037574A1
GENERAL INFORMATION:
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US-10-143-002-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 33,073
REFERENCE/DOCKET NUMBER: 32
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
TELEPAX: 201-994-1744
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/102,493
FILING DATE: <UNKNOWN>
APPLICATION NUMBER: US/08/468,533
FILING DATE: 6 JUNE 1995
APPLICATION NUMBER: PCT/US94/08449
FILING DATE: 28 JUL 1994
ATTORNEY/ACENT INFORMATION:
NAME: MULLINS, J.G.
                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14 PRGGGP 19
                                                                                                                                                                                                                                   1 MDGSGE
                                                                                                                                                                                                                                                                      1 MDGSGE 6
                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: LINEAR MOLECULE TYPE: PROTEIN SEQUENCE DESCRIPTION: S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/10/143,002
FILING DATE: 13-May-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 07068
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
                         TITLE
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                                                                                          APPLICANT:
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                                                                                                                                                                                                                                                                                                          6
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STATE: NEW JERSEY
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                         OF.
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                                                                                                                                                                                                                                                                                                          Conservative
Sieron, Aleksander
INVENTION: RECOMBINANT C-PROTEINASE AND
PROCESSES; METHODS AND USES THEREOF
                                                                          Prockop, Darwin J.
Hojima, Yoshio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USA
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                                                           Shi-Wu
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100.0%; Pred. No.
tive 0; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                <Unknown>
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& OLSTEIN
                                                                                                                                                                                                                                                                                                                          DB 12;
O. 65;
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Query Match
Best Local Similarity
Watches 19; Conserva
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-033-525-2
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US-09-876-204-4
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                                       US-09-876-204-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Rattus norvegicus US-09-876-204-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Gordon C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MO
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-876-204-5
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SEQ ID NO 2
 Query Match
                                                                                                     SEQ ID NO 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local
                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR FILING DATE: 1998-10-05
                                                                                                                                                                                                                        APPLICANT: Gordon C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
                                                                                                                 NUMBER OF SEQ ID NOS: 7 SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: CURRENT FILING DATE: 1998-0 NUMBER OF SEQ ID NOS: 10
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TYPE: PRT
                                                      ORGANISM: Mus
                                                                      TYPE: PRT
                                                                                      LENGTH: 20
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                                                      musculus
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1998-03-02
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100.0%;
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100.0%;
   50.0%;
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Pred. No.
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Pred. No.
   Score
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   10;
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7.3e-05;
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Length
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CURRENT APPLICATION NUMBER: US/09/925,301
CURRENT FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/US00/05882
PRIOR FILING DATE: 2000-03-08
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR FILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 1694
SOPTWARE: PATENTIN PER 1694
SOPTWARE: PATENTIN PER 1694
SOPTWARE: PATENTIN PER 1694
LENGTH: 88
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: Sequence 1634, Application US/09925301

: Patent No. US20020052308A1
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LENGTH: 19
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Best Local Similarity

Matches 9; Conserv
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CURRENT FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR FILING DATE: 1998-10-05
NUMBER OF SEQ ID NOS: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Gordon C. Shore et al.
TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Nucleic Acids, Proteins FILE REFERENCE: PA106
                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Rosen et al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: VARIANT
LOCATION: (6)...(10)
COTHER INFORMATION: Xaa at 8 can be E or D; Xaa
OTHER INFORMATION: Xaa at 8 can be L or P; Xaa
OTHER INFORMATION: Xaa at 10 can be S or G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Synthetic based on consensus sequence of Homo OTHER INFORMATION: sapiens, Mus musculus, and Rattus norvegicus
                                                       LOCATION: (82)
OTHER INFORMATION:
                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                   NAME/KEY: SITE LOCATION: (88)
                                                                                              NAME/KEY: SITE
                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
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                                                       Xaa equals any
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s; Pred. No. 0.0
0; Mismatches
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                                                     of the naturally occurring
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Sequence 143, App	Sequence 36343, A	Sequence 543, App	Sequence 28, Appl	9, 7	Sequence 456, App	Sequence 33529, A	Sequence 24, Appl		Sequence 38835, A	Sequence 35963, A		Sequence 48989, A	34901,	4195	Sequence 257, App	ω ω '	,-	Sequence 97, Appl	` `>	Sequence 534, App	Sequence 532, App	Sequence 438, App	-	•	Sequence 266, App

### ALIGNMENTS

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Sequence 2, Application US/09033525
Patent No. US20020090374A1
GENERAL INFORMATION:
APPLICANT: Yarkoni, Shai
APPLICANT: Ben-Yehudah, Ahmi
APPLICANT: Azar, Yehudith
APPLICANT: Agailan, Rami
APPLICANT: Belotstotsky, Ruth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 3 LENGTH: 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: BAX-MEDIATED APOPTOSIS MODULATING TITLE OF INVENTION: REAGENTS AND METHODS FILE REFERENCE: 50013/011001 CURRENT APPLICATION NUMBER: US/09/876,204 CURRENT FILING DATE: 2001-66-06 CURRENT FILING DATE: 2001-66-06
APPLICANT:
TITLE OF IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR FILING DATE: 1998-10-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 20
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                        1 MDGSGEQPRGGGPTSSEQIM 20
                                                                                                                                                                                                                                                                                                    MDGSGEQPRGGGPTSSEQIM 20
T: Ageilan, Rami
T: Belotstotsky, Ruth
T: Lorberboum-Galski, Haya
T: NOVENTION: CHIMERIC PROTEINS WITH CELL-TARGETING
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#### C;Accession: JC7255 R;Schmitt, E.; Paquet, C.; Beauchemin, M.; Dever-Bertrand, J.; Bertrand, R. Biochem. Biophys. Res. Commun. 270, 868-879, 2000 A;Title: Characterization of Bax-delta, a cell death-inducing isoform of Bax. A;Reference number: JC7255 A;Accession: JC7255 C;Accession: I38921 R;Apte, S.S.; Mattei, M.G.; Olsen, B.R. Genomics 26, 592-594, 1995 A;Title: Mapping of the human BAX gene to chromosome 19q13.3-q13.4 and isolation A;Reference number: I38921; MUID:95331797; PMID:7607685 Bax-delta protein - human C:Species: Homo sapiens (man) C:Date: 09-Jun-2000 #sequence\_revision 09-Jun-2000 #text\_change 17-Nov-2000 A;Cross-references: GDB:228082; OMIM:600040 A;Map position: 19q13.3-19q13.4 C;Superfamily: bcl transforming protein C;Species: Homo sapiens (man) C;Date: 09-Mar-1996 #sequence\_revision 09-Mar-1996 #text\_change 17-Nov-2000 I38921 bcl-2-associated protein x, delta splice form - human N;Alternate names: BAX; programmed cell death membrane protein x delta 20 C; Genetics: A; Molecule type: mRNA A; Residues: 1-143 <RES> A;Accession: I38921 A;Status: preliminary; nucleic acid Вþ A; Gene: GDB:BAX A; Cross-references: EMBL: U19599; NID: 9841237; RESULT Matches Query Match Best Local : 1 MDGSGEQPRGGGPTSSEQIM 20 1 MDGSGEQPRGGGPTSSEQIM 20 20; Similarity Conservative 100.0%; 1 100.0%; 1 tive 0; Score 20; DB 2; Pred. No. 1e-13; Mismatches ( sequence not shown; PIDN: AAC50142.1; PID: 9841238 Length 143, Indels translation 0; not shown Gaps 0; 0f

C;Superfamily: bcl transforming protein
C;Keywords: transmembrane protein

Query Match

100.0%;

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Length 179;

ctivation.

A:Molecule type: mRNA A:Residues: 1-179 <SCH> A:Cross-references: GB:AF247393

A; Experimental source: cancer promyelocytic cells C; Comment: This protein, a member of the Bcl-2 far

family,

has a proapoptotic effect.

Ιt

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R;Oltvai, Z.N.; Milliman, C.L.; Korsmeyer, S.J. Cell 74, 609-619, 1993
A;Title: Bcl-2 heterodimerizes in vivo with a conserved A;Reference number: A47538; MUID:93364978; PMID:8358790
A;Accession: B47538
A;Molecule type: mRNA
A;Residues: 1-218 <OLT>
                                                                                                                                                                                                                                                                                                                                                                                       bcl-2-associated protein x, beta splice form - human
N:Alternate names: BAX; programmed cell death membrane protein x beta
C:Species: Homo sapiens (man)
C:Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 17-Nov-2000
C:Accession: B47538
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C;Keywords: alternative splicing; blocked an
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ttle: Bc1-2 heterodimerizes in vivo with a conserved eference number: A47538; MUID:93364978; PMID:8358790
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predicted <TMM1>
                                                                                                                                                                                                                                                       PIDN:AAA03620.
is blocked
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ches 0;
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                                                                                                                          Length 218;
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                                                                                                                                                                                                                                                                       PID: 9388168
                                                                                                                                                           heterodimer;
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                                                                                                                                                           homodimer
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D47538
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C47538
A; Molecule type: DNA
A; Residues: 1-743 <R
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Matches
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hypothetical protein T8B10.40 - Arabidopsis thalian C:Species: Arabidopsis thaliana (mouse-ear cress) C:Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 C:Accession: T47849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cell 74, 609-619, 1993
Cell 74, 609-619, 1993
A;Title: Bcl-2 heterodimerizes in vivo with a conserved
A:Reference number: A47538; MUID:93364978; PMID:8358790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N;Alternate names: BAX; programmed cell death memb: C;Species: Mus musculus (house mouse)
C;Date: 03-May-1994 #sequence_revision 03-May-1994
C;Accession: D47538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cell 74, 609-619, 1993
A;Title: Bcl-2 heterodimerizes in vivo with a conserved A;Reference number: A47538; MUID:93364978; PMID:8358790
A;Accession: C47538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bcl-2-associated protein x, gamma splice form - human
N;Alternate names: BAX; programmed cell death membrane protein x gamma
C;Species: Homo sapiens (man)
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 08-Oct-1999
C;Accession: C47538
A;Reference number: Z24478
A;Accession: T47849
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                          A; Gene: bax C; Superfamily: bcl transforming protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GDB:228082; OMIM:600040
A;Map position: 19q13.3-19q13.4
C;Keywords: alternative splicing; blocked and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Cross-references: GB:L22472
                                                              submitted to the Protein
                                                                              R; Rieger, M.; Mueller-Auer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-192 <OLT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Oltvai, Z.N.; Milliman, C.L.; Korsmeyer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bcl-2-associated protein x - mouse
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-41 <OLT>
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Similarity 100.0%;
11; Conservative (
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Pred. No.
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<u>N</u>O.
                                                              Schaefer, M.;
e, March 2000
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A:Cross-references: E
A:Experimental source
C:Genetics:
A:Map position: 3
A:Note: T8B10.40
                                                                                                                                                                                                                  A;Title: Identification of a motor protein required for filamentous growth in Ustilago A;Reference number: Z20770; MUID:97361828; PMID:9218789
A;Accession: T51933
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-968 <LEH>
A;Cross-references: EMBL:U92845; PIDN:AAB63337.1
C;Genetics:
A;Genetics:
A;Genetics:
A;Genetics: kin2
C;Superfamily: kinesin heavy chain; kinesin motor domain homology
                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
T51933
kinesin motor protein [imported] - smut fungus (Ustilago maydis)
C;Species: Ustilago maydis (corn smut)
C;Date: 20-Oct-2000 #sequence_revision 20-Oct-2000 #text_change 31-Dec-2000
C;Accession: T51933
R;Lehmler, C: Steinberg, G: Snetselaar, K.M.; Schliwa, M: Kahmann, R.: Bo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hypothetical protein DKFZp586M1019.1 - human
() Species: Homo sapiens (man)
() Species: Homo sapiens (man)
() Clate: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 13-Aug-1999
() Accession: T08760
R.Wambutt, R.; Heubner, D.; Mewes, H.W.; Gassenhuber, J.; Wiemann, S.
submitted to the Protein Sequence Database, March 1999
A; Reference number: Z16471
A; Accession: T08760
A; Molecule type: mRNA
A; Residues: 1-531 <WAMN>
A; Cross references: EMBL:AL050284
A; Experimental source: adult uterus; clone DKFZp586M1019
C; Genetics:
A; Note: DKFZp586M1019.1
hypothetical protein KIAA0596 C; Species: Homo sapiens (man)
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8; Conserv
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submitted to the EMBL Data Library, June 1 A; Description: The sequence of C. elegans A; Reference number: Z18614
                                                                                                                                                                                                                                                                             hypothetical protein T28D9.10 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #te:C;Accession: T16952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Title: Cloning and characterization of gentamicin-resistance A;Reference number: JG0017; MUID:91192615; PMID:2013410 A;Accession: PW0018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein 105 - Micromonospora sp. (fragment)
C;Species: Micromonospora sp.
C;Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 28-Oct-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R:Nagase, T.; Ishikawa, K.; Miyajima, N.; Tanaka, A.; Kotani, H.; DNA Res. 5, 31-39, 1998
A:Title: Prediction of the coding sequences of unidentified human A;Reference number: Z14086; MUID:98290545; PMID:9628581
                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-126 < FUL>
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Gene 98, 53-60, 1991
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                                                                                                              A;Cross-references: EMBL:U28738; NID:g861262; PID:g861268; PIDN:AAA68313.1; CESP:T28DA;Experimental source: strain Bristol N2
                                                                                                                                                                                             A; Reference number: A; Accession: T16952
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Note:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-105 < KEL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Note:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Experimental source: brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 1-1217 < NAG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary; translated from GB/EMBL/DDBJ
                                                                A; Introns:
                                                                               A; Gene: CESP:T28D9.10
                                                                                                                                                                           A;Status: preliminary; translated from GB/EMBL/DDBC
                                                                                                                                                                                                                                                              R; Fulton,
                                                                                                                                                                                                                                                                                                                                              T16952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Cross-references: GB:M55521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: EMBL:AB011168; NID:g3043715; PIDN:BAA25522.1; PID:g3043716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: T00270
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                                Query Match
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                Local
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7; Conserv
Similarity 6; Conserv
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                                                                62/1;
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                                                                96/1
                30.0%;
100.0%;
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100.0%;
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               Score 6; Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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      DB
28;
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20;
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                              Length 126;
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Matches

Conservative

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Indels

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Gaps

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A:Gene: GDB:RRAS
A:Gree: GDB:RRAS
A:Gross-references: GDB:120356; OMIM:165090
A:Map position: 19q13.3-19qter
A:Introns: 51/3; 81/1; 115/2; 151/3; 191/2
C:Superfamily: ras transforming protein; translation elongation factor Tu homology
C:Keywords: GTP binding; lipoprotein; membrane protein; methylated carboxyl end; nucleot
F:30-145/Domain: translation elongation factor Tu homology <ETU>
F:34-3/Kegion: nucleotide-binding motif A (P-loop)
F:142-145/Region: GTP-binding NKXD motif
F:172-174/Region: GTP-binding NKXD motif
F:42,43,61,142,143,145,172/Binding site: Mg-GTP (Lys, Ser, Thr, Asn, Lys, Asp, Ser) #sta
F:215/Binding site: geranyl-geranyl (Cys) (covalent) #status predicted
F:215/Modified site: methyl ester carboxyl end (Cys) (in mature form) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Lowe, D.G.; Capon, D.J.; Delwart, E.; Sakaguchi, A.Y.; Naylor, S.L.; Goeddel, Cell 48, 137-146, 1987
A;Title: Structure of the human and murine R-ras genes, novel genes closely relapised number: A26159; MUID:87078390; PMID:3098437
A;Accession: A26159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Delcule type: DNA
A; Molecule type: DNA
A; Residues: 1-137 <KAW>
A; Cross-references: DDBJ: AP000060;
A; Cross-references: DDBJ: AP000060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R:Kawarabayasi, Y.; Hino, Y.; Horikawa, H.; Yamazaki, S.; Haikawa, Y.; Jin-no, K.; Taka awa, H.; Takamiya, M.; Masuda, S.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; DNA Res. 6, 83-101, 1999
A:Title: Complete genome sequence of an aerobic hyper-thermophilic Crenarchaeon, Aeropy A:Reference number: A72450; MUID:99310339; PMID:10382966
A:Accession: G72666
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G72666
G72666
C;Species: Aeropyrum pernix
C;Species: Aeropyrum pernix
C;Species: Aeropyrum pernix
C;Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text_change 09-Jun-2000
C;Date: 20-Aug-1666
C;Accession: G72666
C;Accession: G72666
R;Kawarabayasi, Y.; Hino, Y; Horikawa, H.; Yamazaki, S.; Haikawa, Y.; Jin-r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               transforming protein R-ras - human
C;Species: Homo sapiens (man)
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 19-Jan-2001
C;Accession: A26159
В
                                   Qy
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A; Residues: 1-218 <LOW>
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C;Superfamily: Aeropyrum
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: GB:M14949; NID:g190934; PIDN:AAA60256.1;
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les 6; Conserv
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                                          PRGGGP 13
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100.0%; Pr
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o. 45;
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A; Molecule type: mRNA
A; Residues: 1-246 < WRIN
A; Cross-references: GB: M82967; NID:g338291; PIDN:
A; Experimental source: testis
A; Note: the authors translated the codon TCC for
C; Keywords: alternative splicing
                                                                                                                                                                                                                                                                                                                                              C;Accession: B37225
R;Wright, R.M.; John, E.; Klotz, K.; Flickinger, C.J.; Herr, J.C. Biol. Reprod. 42, 693-701, 1990
A;Title: Cloning and sequencing of cDNAs coding for the human int A;Reference number: A37225; MUID:90268085; PMID:1693291
A;Accession: B37225
                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                               acrosomal protein SP-10-10 precursor, testicular - human
C;Species: Homo sapiens (man)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 21-Jul-2000
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B37225
Search completed: January Job time: 14.3333 secs
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100.0%; Fi
                7,
                    2003,
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                    12:40:23
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Maximum DB
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Perfect score:
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seq length:
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Listing first 45 summaries
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                                               sp_plant:*
sp_rodent:*
sp_virus:*
sp_vertebrate:*
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sp_phage:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

	16	15	14	13	12	11	10	9	80	7	6	. <sub>(</sub> (1)	4	· w	2	_	No.	Result
	49.5	49.5	49.5	50	50	50	51	52	52	52	54	83	97	106	106	106	Score	
	46.7	46.7	46.7	47.2	47.2	47.2	48.1	49.1	49.1	49.1	50.9	78.3	91.5	100.0	100.0	100.0		Query
	778	715	473	743	495	213	658	475	403	402	302	24	192	179	164	24	Length DB	
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<b>4</b> 5	44	43	42	41	40	39	38	37	36	3.5	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	11
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Q9cw03 mus musculu	Q9puj3 gallus gal	Q9snk6 oryza sativ	Q8vk57 mycobacteri	062020 caenorhabdi	Q8q880 human immun	O27639 methanobact	074128 yarrowia li	Q64837 human adeno	Q9vc90 drosophila	Q8ws10 plasmodium	Q95rr2 drosophila	Q8vd73 mus musculu	Q89799 human adeno			Q8r5n2 streptomyce		Q8wuz0 homo sapien	043770 homo sapien	Q9dam3 mus musculu	Q9y3x0 homo sapien	Q9ye12 aeropyrum	018414 drosophila	Q8w2r7 oryza sativ	Q8wv66 homo sapien	Q8u8i7 agrobacteri	Q9nx73 homo sapien	10110

## ALIGNMENTS

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OBWXU1;
01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

Thornborrow E.C., Schwartzfarb E.M., Manfredi J.J.;
Thornborrow E.C., Schwartzfarb E.M., Manfredi J.J.;

"A conserved intronic response element mediates direct p53-dependent transcriptional activation of both the human and murine bax genes.";
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.

EMBL; AF339054; AAL73333.1; -.

EMBL; AF339054; AAL73333.1; -.

EMBL; AF339054; AAL73333.1; -.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                      SEQUENCE
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EMBL; AF247393; AAI
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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01-JUN-2002 (TrEMBLrel.
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PROSITE: PS01080; BH1; 1.
PROSITE: PS01259; BH3; 1.
SEQUENCE 164 AA; 18129 MW;
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InterPro; IPR002475; BCL2_family.
Pfam; PF00452; Bc1-2; 1
SMART; SM00337; BCL; 1.
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Q8SQ43;
01-JUN-2002
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STRAIN-BALB/C;

Thornborrow E.C., Schwartzfarb E.M., Manfredi J.J.;

Thornborrow E.C., Schwartzfarb E.M., Manfredi J.J.;

"A conserved intronic response element mediates direct p53-dependent transcriptional activation of both the human and murine bax genes.";

Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.

EMBL; AF339055; AAL73334.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q8VHY7;
01-MAR-2002 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel
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Mammalia; Eutheria;
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17; Conserv
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oa; Chordata; Craniata; Vertebrata;
ia; Carnivora; Fissipedia; Felidae;
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Rodentia;
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85.0%;
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Pred. No. 2.9e

0; Mismatches
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2.9e-06;
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1.8e-07
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pfam; pF01083; Cutinase; 1.
proDom; pD001821; CBD_fungal;
SMART; SM00236; fCBD; 1.
                                                                                                                                                                                                                                                                                                                                   HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Acta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hakulinen N., Tenkanen M., Rouvinen J.;
"Crystallization and preliminary X-ray diffraction studies catalytic core of acetyl xylan esterase from Trichoderma r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION.
STRAIN=RUTC-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        serine residue and a cellulose-binding domain."; Eur. J. Biochem. 237:553-560(1996).
                                                                                                                                                                                                                                                                                                  InterPro; IPR000254; CBD_fun
InterPro; IPR000675; Cutinas
InterPro; IPR000734; Lipase.
                                                                                                                                                                                                                                                                                                                                                                                                                          -!- ENZYME REGULATION: INHIBITED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Poutanen K., Sundberg M., Korte H., Puls J., "Deacetylation of xylans by acetyl esterases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Margolles-Clark E.,
                                                                                                                                                                                                                         Cellulose
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     X-RAY CRYSTALLOGRAPHY (2.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Biotechnol. Appl. Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Trichoderma
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                                                                                                                                                                                                            3D-structure;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Purification and properties of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Acetyl xylan esterase from Trichoderma reesei
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237
                                                                                                                                                                                                                                                                                                                                                      MASS SPECTROMETRY: MW-21806; METHOD-MALDI.
SIMILARITY: CONTAINS 1 FUNGAL-TYPE CELLULOSE-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                    PATHWAY: XYLAN DEGRADATION SUBUNIT: MONOMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                    CATALYTIC ACTIVITY: DEACETYLATION OF XYLANS OLIGOSACCHARIDES.
                                                                                                                                                                                                                                                                                                                                                                               PTM: GLYCOSYLATED.
                                                                                                                                                                                                                                                                                                                                                                                         SUBCELLULAR LOCATION: EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                         a Crystallogr. D 54:430-432(1998).
FUNCTION: DEGRADEDS ACETYLATED XYLANS BY
GROUPS FROM THE HETERO-XYLAN BACKBONE.
LSSGGSQPPGGGPTSTSR
                    MDGSGEQPRGGGPTSSEQ 18
                                                                                                                                                                                                                                                                                                      P00725; 2CBH.
Pro; IPR000254; CBD_fungal.
Pro; IPR000675; Cutinase.
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                                         Similarity 50.0
9; Conservative
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                                         Score 54; DB Pred. No. 1.7; 3; Mismatches
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                                                                                            BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNA
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                                                                                                                                                    LINKER (BY SIMILARITY)
CELLULOSE-BINDING (BY
                                                                                                                                            BLOCKED
                                                                                                                                                                          POTENTIAL.
ACETYLXYLAN ESTERASE
                                                                                                                                                                                                                                 UNKNOWN_1
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                                                                                    LINKED (GLCNAC. . .) (FBB6EDCA2971A9F2A CRC64;
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01-OCT-2000 (TrEMBLrel. 15, Createg)
01-OCT-2000 (TrEMBLrel. 15, Last seq
01-JUN-2002 (TrEMBLrel. 21, Last ann
Winged helix/forkhead transcription
                                                                                                                                                                                                                                                                                                        "Isolation and characterization the human submitted (JAN-2000) to the EMBL/GenBank/D EMBL; AF225950; AAKO0639.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09C009 PRELIMINARY;
09C009;
01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2002 (TrEMBLrel. 21,
PROSITE; PS00657; FORK_HEAD_1; PROSITE; PS00658; FORK_HEAD_2; PROSITE; PS50039; FORK_HEAD_3; SEQUENCE 403 AA; 41491 MW;
                                                                                                                        PRINTS; PRO0053; FORKHEAD.
PRODOM; PD000425; TF_Fork_head;
SMART; SM00339; FH; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00657; FORK_HEAD_1; PROSITE; PS00658; FORK_HEAD_2; PROSITE; PS50039; FORK_HEAD_3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam: PF00250; Fork_head; 1.
PRINTS; PR00053; FORKHEAD.
ProDom: PD000425; TF_Fork_head;
SMART; SM00339; FH; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     differentiation of hair in satin Genesis 29:163-171(2001).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AF153341; AAF75586.1; HSSP; Q63245; 2HFH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE=21207067; PubMed=11309849;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9NS06
                                                                                                                                                                                                                                   InterPro; IPR001766; TF_Fork_head.
Pfam; PF00250; Fork_head; 1.
                                                                                                                                                                                                                                                                                                    HSSP; Q63245; 2HFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HNF-3/forkhead-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
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10; Conserv
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1; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Catarrhini: Hominidae; Homo.
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Catarrhini;
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   EB52255AEAC6929B
                                                                                                                                                       D.J.,
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                                                                                                                                                                                                                                                                                                                                                                                                 Zoll B.;
fork head gene
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Q9N8R6;
01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation updat
nossible putative cell division related protein.
                                                                                                                                      STRAIN-TREU927;
STRAIN-TREU927;
Hall N., Bowman S., Quail M., Ivens A.C., Kay M.P., Bray Lennard N.J., Clark L.N., Harris B.R., Melville S., Laws. Gerrard C., Rajandream M.A., Barrell B.G.;
Gerrard C., Rajandream M.A., Barrell B.G.;
Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
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01-DEC-2001 (TrEMBLrel. 20, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
Chemotaxis protein (Motility protein D).
MOTD OR R00676 OR SMC03044.
Rhizoblum meliloti (Sinorhizobium meliloti).
Bacteria: Proteobacteria; alpha subdivision; Rhizob
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Q92RZ5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sinorhizobium meliloti strain 1021.";
Proc. Natl. Acad. Sci. U.S.A. 98:9877-9882(2001).
EMBL; AL591784; CAC45248.1; -.
              InterPro; IPR001623; DnaJ_N.
InterPro; IPR003095; Hsp_Dna
InterPro; IPR001005; Myb_DNa
                                                                                 -!- SUBCELLULAR LOCÁTION: NUCLEAR (BY SIMII-

-!- SIMILARITY: CONTAINS 1 MYB-LIKE DOMAIN

EMBL, AL359782; CAB95467.1; --

HSSP: P25685; 1HDJ:
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                                                                                                                                                                                                                                                                                                                                     Eukaryota; Euglenozoa; NCBI_TaxID=5691;
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InterPro;
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RESULT
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Best Local S
Matches 10
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Pfam; PF00229; myb_DNA-binding; 1
PRINTS; PR00625; DNAJPROTEIN.
SMART; SM00271; DnaJ; 1.
SMART; SM00395; SANT; 1.
PROSITE; PS50076; DNAJ_2; 1.
Cell division; Nuclear protein.
SEQUENCE 658 AA; 75711 MW; C3
                                                                                                                                               01-DEC-2001
01-DEC-2001
01-DEC-2001
                                                                                 Ovine herpesvirus 2.
Viruses; dsDNA viruses,
Gammaherpesvirinae.
NCBI_TaxID=10398;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Spermatophyta; Magnoliophyta; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots: Panile eurosids I; Fabales; Fabaceae; Panilionoids Room NCBI_TaxID=4600
         "Isolation and expression of
ovine herpesvirus 2.";
Submitted (AUG-2001) to the
EMBL; AF410847; AAL05844.1;
                                                                                                                                                                               Q918P0;
                                                                                                                                                                                                                                                                                                                                       MEDLINE=20120383; PubMed=10656590; 
Jimenez-Zurdo J.I., Frugier F., Crespi M.D., Kondor 
"Expression profiles of 22 novel molecular markers 
Pathways acting in alialfa nodule development."; 
Mol. Plant Microbe Interact. 13:96-106(2000). 
EMBL; AJ248329; CAB65282.1; -
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                                                                                                                                    Latency
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                                                     Coulter
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TISSUE=ROOT NODULES;
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NCE 213 AA; 23149 M
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                                                     Reid H.W.;
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BLrel. 19,
d antigen.
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RESULT
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Query Match
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Best Local
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01-OCT-2000 (TrEMBLrel. 15, Last sequence up
01-DEC-2001 (TrEMBLrel. 19, Last annotation
Hypothetical 82.6 kDa protein.
T8B10_40.
                                                                                                                                                                                                                                                                                                                                                     Q96AV4 PRELIMINARY; PRT; 473 AA.
Q96AV4;
Q1-DEC-2001 (TrEMBLrel. 19, Created)
Q1-DEC-2001 (TrEMBLrel. 19, Last sequence update)
Q1-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 50.8 kDa protein.
                                                                                 Strausberg R.;
Submitted (CCT-2001) to the EMBL/GenBank/DDBJ
EMBL; BC016681; AAH16681.1; -
InterPro; IPR000449; UBA_domain.
Hypothetical protein.
SEQUENCE 473 AA; 50750 MW; D27DAD437DA98AJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EU Arabidopsis sequencing project;
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ
EMBL; AL188646; CAB81824.1;
InterPro; IPR000977; DNA_ligase.
PROSITE; PS00697; DNA_LIGASE_A1; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
Rieger M., Mueller-Auer S., Zipp M.,
Lemcke K., Mayer K.F.X., Quetier F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Arabidopsis thaliana (Mouse-ear cress).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;

eurosids_II; Brassicales; Brassicaceae; Arabidopsis.
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                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                    Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human)
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  l Similarity
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    Conservative
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score 49.5; D: Pred. No. 15; 4; Mismatches
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Catarrhini;
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Salanoubat M.
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Q96JL4;
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01-DEC-2001 (
01-JUN-2002 (
                                                                                                                                              Pfam: PF00069; pkinase; 1.

ProDom; PD000001; Euk_pkinase; 1.

PROSITE; PS00101; PROTEIN_KINASE_DOM; 1.

PROSITE; PS00108; PROTEIN_KINASE_ST; UNKNOWN_1.

NON_TER 1 1
                                                                                                                                                                                                       EMBL; AB058714; BAB47440.1; ... InterPro; IPR0007719; Euk_pkinase. InterPro; IPR00299; Ser_thr_pkinase InterPro; IPR000449; UBA_domain.
                                                                                                                                                                                                                                                   The complete sequences of 10 for large Proteins in vitro. DNA Res. 8:85-95(2001).
                                                                                                                                                                                                                                                                        Nagase T., Nakayama M., Nakajima D., Kikuno R., Ohara O.; "Prediction of the coding sequences of unidentified human The complete sequences of 100 new cDNA clones from brain w
                                                                                                                                                                                                                                                                                                                      TISSUE=BRAIN;
                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                   KIAA1811
                                                                                                                                                                                                                                                                                                                                                                                                             KIAA1811 protein (Fragment)
                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                            MEDLINE=21245130; PubMed=11347906;
                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
                                             397
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                                                        3 GSGEQPRGGG-PTSSEQIM
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                                           GAGDEARGGGSPTSKTQTL
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                                                                                                    Similarity
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                                                                                       Conservative
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                                                                                                                                    78499 MW;
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                                                                                                   Score 49.5;
Pred. No. 23;
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Listing first 45 summaries
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/cgn2_6/ptodata/1/paa/US08_COMB.pep:*
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/cgn2_6/ptodata/1/paa/US081_COMB.pep:*
/cgn2_6/ptodata/1/paa/US082_COMB.pep:*
/cgn2_6/ptodata/1/paa/US083_COMB.pep:*
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Copyright (c) 1993
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PCT-US99-24747-1

PCT-US99-2471-5

US-09-177-315-5

US-09-177-315-5

PCT-US99-24747-3
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#### ALIGNMENTS

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US-09-876-204-3
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Best Local S
Matches 20
                                                                                                                                             NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 3
LENGTH: 20
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                               Sequence 3, Application US/09876204 GENERAL INFORMATION:
                                                                                                                                                                                                                                            APPLICANT: Gordon C. Shore et al.
TITLE OF INVENTION: BAX MEDIATED APOPTOSIS MODULATING
TITLE OF INVENTION: REAGENTS AND METHODS
FILE REFERENCE: 50013/011001
CURRENT APPLICATION NUMBER: US/09/876,204
CURRENT FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: 09/166,028
PRIOR PILING DATE: 1998-10-05
                 1 MDGSGEQPRGGGPTSSEQIM 20
MDGSGEQPRGGGPTSSEQIM 20
                                                                 20;
                                                                               Similarity
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; SEQ ID NO 1; LENGTH: 70; TYPE: PAT; ORGANISM: Homo s
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; LENGTH: 70
; TYPE: PRT
; ORGANISM: Homo sapiens
PCT-US99-24747-1
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US-09-177-315-1
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PCT-US99-24747-1
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; TYPE: PRT
; ORGANISM: Homo sapiens
PCT-US99-24747-5
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                                                                                                                      Sequence 1, Application US/09177315
GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
CURRENT APPLICATION NUMBER: US/09/177,315
CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
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SEQ ID NO 5
TOUCTH: 70
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Query Match
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CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
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APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: NeurOprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
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CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
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APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: NeurOprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
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Local Similarity 100.0%;
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Pred. No. le-06;
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Pred. No. 1e-06;
          Score 106;
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RESULT 7
PCT-US99-24747-7
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US-09-177-315-5
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Sequence 7, Application PC/TUS9924747

GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-1754
CURRENT APPLICATION NUMBER: PCT/US99/24747
CURRENT FILING DATE: 1999-10-22
NUMBER OF SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                                                                                                                                      ; SEQ ID NO 3
; LENGTH: 78
; TYPE: PRT
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GENERAL INFORMATION:
APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachael M.
TITLE OF INVENTION: Neuroprotective Truncated
FILE REFERENCE: 6029-1754
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SEQ ID NO 5
LENGTH: 70
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Best Local Similarity
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CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
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APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Ver. 2.0
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Pred. No. 1.2e-06;
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Pred. No. 1e-06;
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CURRENT APPLICATION NUMBER: US/09/177,315
CCURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 3
LENGTH: 78
TYPE: PRT
ORGANISM: Homo Sapiens
US-09-177-315-3
PCT-US99-05359-2 Sequence 2, Application PC/TUS9905359
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                              RESULT 10
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                                                                                                                       Query Match
Best Local Similarity
Matches 20; Conserv
                                                                                                                                                                                                                                                                                                                                                                               Sequence 7, Application US/09177315 GENERAL INFORMATION:
                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/177,315
CURRENT FILING DATE: 1998-10-22
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 7
LENGTH: 78
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                 APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Neuroprotective Truncated BAX Polypeptides
FILE REFERENCE: 6029-5756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Johnson Jr., Eugene M.
APPLICANT: Easton, Rachel M.
TITLE OF INVENTION: Weuroprotective Truncated
FILE REFERENCE: 6029-5756
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Pred. No. 1.2e-06;
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Pred. No.
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ches 0;
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                                                                             RESULT 12
PCT-US02-06951-242
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US-09-266-465-2
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Sequence 242, Application PC/TUS0206951
GENERAL INFORMATION:
APPLICANT: Phylos, Inc.
APPLICANT: Phylos, Inc.
TITLE OF INVENTION: Polypeptides Interactive with BCL-X1
                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 2
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APPLICANT: SWISHER, STEVEN G.
APPLICANT: FANG, BINGLIANG
APPLICANT: BRUCKHEIMER, ELIZAI
APPLICANT: SARKISS, MONA
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APPLICANT: BRUCKHEIMER, ELIZABETH
APPLICANT: SARKISS, MONA
APPLICANT: SARKISS, MONA
APPLICANT: JACK A.

TITLE OF INVENTION: INDUCTION OF APOPTIC OR CYTOTOXIC GENE EXPRESSION I
TITLE OF INVENTION: ADENOVIRAL MEDIATED GENE CODELIVERY
FILE REPERENCE: INCN:088/INGN:088P
CURRENT APPLICATION NUMBER: PCT/US99/05359
CURRENT APPLICATION NUMBER: PCT/US99/05359
ECHRENT FILING DATE: 1999-03-11
EARLIER APPLICATION NUMBER: 60/0777,541
EARLIER FILING DATE: 1998-03-11
NUMBER OF SEQ ID NOS: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: JI, LIN
APPLICANT: ROTH, JACK A.
TITLE OF INVENTION: INDUCTION OF APOPTIC OR CYTOTOXIC GENE EXPRESSION
TITLE OF INVENTION: ADENOVIRAL MEDIATED GENE CODELIVERY
TITLE REFERENCE: INCN:088/INGN:0889
CURRENT APPLICATION NUMBER: US/09/266,465
CURRENT FILING DATE: 1999-03-11
                                                                                                                                                                                                                                                                                                                                                                                                              EARLIER APPLICATION NUMBER: 60/077,541
EARLIER FILING DATE: 1998-03-11
NUMBER OF SEQ ID NOS: 10
SOFTWARE: Patentin Ver. 2.0
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TYPE: PRT
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TYPE: PRT
                                                                                                                                                                                                                                                           Local Similarity
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Pred. No. 2.1e-06;
Mismatches 0;
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FILE REFERENCE: 50036/050WO2

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; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 242
; LENGTH: 135
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-092-750-242
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US-09-791-537-52874
Sequence 52874, Application US/09791537
GENERAL INFORMATION:
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US-10-092-750-242
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                                                   ; ORGANISM: Homo sapiens US-09-791-537-52874
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Best Local S
Matches 20
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CURRENT FILING DATE: 2002-03-07
PRIOR APPLICATION NUMBER: US 60/274,526
PRIOR FILING DATE: 2001-03-08
NUMBER OF SEQ ID NOS: 253
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 242
LENGTH: 135
Query Match
                                                                                                                              SOFTWARE: PatentIn version 3.0 SEQ ID NO 52874
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Best Local :
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APPLICANT: Wright, Martin C.
TITLE OF INVENTION: Polypaptides Interactive with BCL-X1
FILE REFERENCE: 50036/050002
CURRENT APPLICATION NUMBER: US/10/092,750
CURRENT FILING DATE: 2002-03-07
PRIOR APPLICATION NUMBER: US 60/274,526
PRIOR FILING DATE: 2001-03-08
                                                                                                                                                                 APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBE
TITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: 261/210
CURRENT FALICATION NUMBER: US/09/791,537
CURRENT FILLING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
                                                                                                                                                                                                                                                                                      APPLICANT: Bionomix, Inc.
APPLICANT: Debe, Derek
APPLICANT: Danzer, Josepl
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                                                                                     LENGTH: 143
TYPE: PRT
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Local Similarity 100.0%;
hes 20; Conservative (
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20; Conserv
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            100.0%;
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Pred. No. 2.2e-06;
); Mismatches 0;
            Score 106;
            DB 21;
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            Length 143;
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Search completed: January Job time: 141 secs
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US-60-350-061-261
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GENERAL INFORMATION:
APPLICANT: Bristol-Myers Squibb Company

TITLE OF INVENTION: IDENTIFICATION OF GENES FOR PREDICTING ACTIVITY OF COMPOUNDS T

TITLE OF INVENTION: INTERACT WITH SRC TYROSINE KINASES AND THE SRC TYROSINE KINAS

FILE REFERENCE: D0185
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Best Local 9
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CURRENT FILING DATE: 2002-01-18
NUMBER OF SEQ ID NOS: 981
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 100.0%;
Local Similarity 100.0%;
les 20; Conservative (
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                                                     7, 2003, 12:36:30
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      262191 seqs, 70875818 residues
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/cgn2_6/ptcodata/2/paa/US06_NEW_COMB.pep:*
/cgn2_6/ptcodata/2/paa/US07_NEW_COMB.pep:*
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                  PCT-USO2-38191-5
US-10-196-793A-46
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PCT-USO2-06001-32
US-10-274-17-18
US-10-274-17-25717
PCT-USO2-32727-25717
PCT-USO2-32727-29374
US-10-057-498-25717
US-09-724-676-55403
US-09-724-676-64341
US-10-057-498-10714
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120.181 Million cell updates/sec
Sequence 5, Appli Sequence 46, Appli Sequence 32, Appli Sequence 32, Appli Sequence 32, Appli Sequence 32, Appli Sequence 25717, Appli Sequence 25717, Appli Sequence 25717, Appli Sequence 55403, Appli Sequence 10714, Appli Sequence 10714, Appli Sequence 64341, Appli Sequence 64346, Appli Sequence 64346, Appli Sequence 64346, Appli Sequence 50097, Appli Sequence 50097, Appli Sequence 50097, Appli Sequence 50098, App
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US-10-306-878-5
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PCT-US02-38191-5
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Sequence 50102,	Sequence 50101, ,	Sequence 50096, I	Sequence 50096, A	Sequence 91247, P	Sequence 91247, A	Sequence 126, App	Sequence 50094, A	Sequence 50093, A	Sequence 50094, A	Sequence 50093, A	Sequence 50100, F	Sequence 50099, 1	Sequence 50100, 1	Sequence 50099, A	Sequence 50092, A	Sequence 50091, A	Sequence 50092, A	Sequence 50091, /

## ALIGNMENTS

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SEQ ID NO 5
LENGTH: 192
TYPE: PRT
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APPLICANT: Reed, John C.
APPLICANT: Guo, Bin
TITLE OF INVENTION: Methods for Identifying Modulators
TITLE OF INVENTION: Apoptosis
FILE REFERENCE: FP-LJ 5483
                                                                                                                                                                                                                                                                                                Sequence 5, Application US/10306878 GENERAL INFORMATION:
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 5
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                                                                               APPLICANT: Reed, John C.
APPLICANT: Guo, Bin
TITLE OF INVENTION: Methods for Identifying Modulators
TITLE OF INVENTION: Apoptosis
TILE REFERENCE: P-LJ 5535
CURRENT APPLICATION NUMBER: US/10/306,878
CURRENT FILING DATE: 2002-11-27
PRIOR APPLICATION NUMBER: US 60/334,149
PRIOR FILING DATE: 2001-11-28
PRIOR FILING DATE: 201-11-28
NUMBER OF SEO ID NOS: 28
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CURRENT FILING DATE: 2002-11-27
PRIOR APPLICATION NUMBER: US 60/334,149
PRIOR FILING DATE: 2001-11-28
                                                                  SOFTWARE: FastSEQ for Windows Version 4.0
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Pred. No. 3.5e-07;
Mismatches 0;
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PRIOR APPLICATION NUMBER: 60/360,361
PRIOR FILING DATE: 2002-02-28
PRIOR APPLICATION NUMBER: 60/332,886
PRIOR FILING DATE: 2001-11-06
PRIOR APPLICATION NUMBER: 60/306,091
PRIOR FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 61
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 46
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-196-793A-46
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                                                                                                                                                   CURRENT APPLICATION NUMBER: PCT/US02/06001
CURRENT FILING DATE: 2002-12-20
PRIOR APPLICATION NUMBER: US 60/272,206
PRIOR FILING DATE: 2001-02-27
PRIOR APPLICATION NUMBER: US 60/281,149
PRIOR FILING DATE: 2001-04-02
PRIOR APPLICATION NUMBER: US 60/284,555
PRIOR APPLICATION NUMBER: US 60/284,555
PRIOR FILING DATE: 2001-04-17
NUMBER OF SEQ ID NOS: 42
SOFTWARE: Patentin Ver. 2.1
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Best Local Similarity 100.0%; Pred. No. 1.7
Matches 19; Conservative 0; Mismatches
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                                                                                                                                  SEQ ID NO 32
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APPLICANT: Eos Biotechnology, Inc.
APPLICANT: Case Western Reserve University
TITLE OF INVENTION: Novel Methods of Diagnosis of Metastatic Colorectal
TITLE OF INVENTION: Cancer, Compositions and Methods of Screening for
TITLE OF INVENTION: Modulators of Metastatic Colorectal Cancer
FILE REFERENCE: 018501-000840PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/196,793A CURRENT FILING DATE: 2002-07-17
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APPLICANT: LIU, YUYING
TITLE OF INVENTION: THERAPEUTIC AGENTS COMPRISING PRO-APOPTOTIC PROTEINS
FILE REFERENCE: CLFR:012US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Mack, David H.
OTHER INFORMATION: winged helix/forkhead transcription factor (HFH1)
                                                        ORGANISM: Homo sapiens
                                                                                   LENGTH: 402
TYPE: PRT
                                    FEATURE:
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Local Similarity 100.0%;
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1.7e-06;
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; LENGTH: 402
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-274-177-18
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; Sequence 18, Application US/10274177
; GENERAL INFORMATION:
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US-10-087-080-32
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                                                                                   ; OTHER INFORMATION: winged helix/forkhead transcription factor (HFH1) US-10-087-080-32
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CURRENT FILING DATE: 2002-10-18
PRIOR APPLICATION NUMBER: US/10/229,345
PRIOR FILING DATE: 2002-08-26
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn version 3.1
SEQ ID NO 18
                                                                                                                                                                    SOFTWARE: PatentIn Ver.
SEQ ID NO 32
LENGTH: 402
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 32, Application US/10087080 GENERAL INFORMATION:
                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                   APPLICANT: Markowitz, Sanford David
APPLICANT: Eos Biotechnology, Inc.
APPLICANT: Case Western Reserve University
TITLE OF INVENTION: Novel Methods of Diagnosis of Metastatic Colorectal
TITLE OF INVENTION: Cancer, Compositions and Methods of Screening for
TITLE OF INVENTION: Modulators of Metastatic Colorectal Cancer
FILE REFERENCE: 018501-000440US
CURRENT APPLICATION NUMBER: US/10/087,080
CURRENT FILING DATE: 2002-10-25
PRIOR APPLICATION NUMBER: US 60/272,206
PRIOR APPLICATION NUMBER: US 60/271,149
PRIOR APPLICATION NUMBER: US 60/281,149
PRIOR APPLICATION NUMBER: US 60/281,149
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                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 60/284,555 PRIOR FILING DATE: 2001-04-17 NUMBER OF SEQ ID NOS: 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Mack, David H.
                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 2001-04-02
                                                                                                                                      ORGANISM: Homo sapiens
                                                                                                                           FEATURE:
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Local Similarity 58.8%;
hes 10; Conservative
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Conservative
                   49.1%;

    Mismatches

                   Score 52; DB
Pred. No. 15;
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Pred. No. 15;
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  Mismatches
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; LOCATION: (44)
; OTHER INFORMATION: Xaa = Any Amino Acid
PCT-US02-32727-25717
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PCT-US02-32727-29374
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CURRENT APPLICATION NUMBER: PCT/US02/32727
CURRENT FILING DATE: 2002-10-11
NUMBER OF SEQ ID NOS: 30992
SEQ ID NO 29374
LENGTH: 73
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LENGTH: 73
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CURRENT FILING DATE: 2002-10-11
NUMBER OF SEQ ID NOS: 30992
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                                                                           APPLICANT: Douglass, John
TITLE OF INVENTION: Compositions and Methods
FILE REFERENCE: 210121.514C1
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APPLICANT:
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Wang, Siqing
Jen, Shyian
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Barth, Brenda
Douglass, John
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Bhatia, Ajay
Maisonneuve, Jean Francois
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Bhatia, Ajay
Maisonneuve, Jean Francois
                                                                                                                        Carter, Darrick
Barth, Brenda
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Jones, Robert
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Wang, Siqing
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Pred. No. 16;
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                                                                                         for the Therapy and Diagnosis of Acnes
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; NAME/KEY: unsure
; LOCATION: (44)
; OTHER INFORMATION: Xaa = Any Amino Acid
US-10-057-498-25717
RESULT 11
US-09-724-676A-55403
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                                                                                                                                                                               ; ORGANISM: Homo sapiens US-09-724-676-55403
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US-09-724-676-55403
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                                                                                                                   Query Match
Best Local S
Matches 8
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APPLICANT: Mitcham, Jennifer
APPLICANT: Skeiky, Yasir
APPLICANT: Skeiky, Vasir
APPLICANT: Persing, David
TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acne FILE REFERENCE: 210121.514
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Best Local S
Matches 8
                                                                                                                                                                                                                                                                                                                                                         Sequence 55403, Application US/09724676 GENERAL INFORMATION:
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SEQ ID NO 55403
LENGTH: 220
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CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 29212
                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/724,676
CURRENT FILING DATE: 2000-11-28
                                                                                                                                                                                                                                                                                                             APPLICANT: Compugen LTD TITLE OF INVENTION: Variants of alternative FILE REFERENCE: 129181.4 Compugen
                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 97222
                                                                                                                                                                                                            TYPE: PRT
                                                             76
                                                                                                                                                                                                                                                                                                                                                                                                                                                  45 LDGDGHRPAGGGDEERRQ 62
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                                                                                       3 GSGEQPRGGGP 13
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                                                             GRGASPRGGGP
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8; Conserv
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72.7%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 47; DB
Pred. No. 16;
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; Sequence 55403, Application US/09724676A
; GENERAL INFORMATION:

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RESULT 13
US-10-057-498-10714
US-10-057-498-10714, Application US/10057498

GEMERAL INFORMATION:
APPLICANT: Mitcham, Jennifer
APPLICANT: Skeiky, Yasir
APPLICANT: Persing, David
TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acnes
FILE REFERENCE: 210121.514
CURRENT APPLICATION NUMBER: US/10/057,498
CURRENT FILING DATE: 2001-04-20
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-724-676A-55403
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PCT-US02-32727-10714
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SEQ
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TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676A
CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
SOFTWARE: Patentin version 3.2
SEQ ID NO 55403
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LENGTH: 94
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Matches 8; Conserva
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APPLICANT:
APPLICANT:
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TITLE OF INVENTION: Compositions and Methods for the Therapy and Diagnosis of Acnes
FILE REFERENCE: 210121.514C1
CURRENT APPLICATION NUMBER: PCT/US02/32727
CURRENT FILING DATE: 2002-10-11
NUMBER OF SEQ ID NOS: 30992
          NUMBER OF SEQ ID NOS: 29212
SEQ ID NO 10714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Mitcham, Jennifer APPLICANT: Skeiky, Yasir
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Local Similarity 61.5%;
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Jen, Shyian
Lodes, Michael
Benson, Darin
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Bhatia, Ajay
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Maisonneuve, Jean
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72.78;
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Job time: 11.7949 secs
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RESULT 15
US-09-724-676-64338
Sequence 64338, Application US/09724676
GENERAL INFORMATION:
APPLICANT: Compugen LTD
TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Watches 8; Conserv
                                                                                                                             ; ORGANISM: Homo sapiens US-09-724-676-64338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Homo sapiens US-10-276-774-1847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
US-10-276-774-1847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: PRT; ORGANISM: Propioni acnes US-10-057-498-10714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 45.5
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 09/496,914
PRIOR FILING DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 2700
SOFTWARE: CUSTOM
SEQ ID NO 1847
LENGTH: 131
                                                                                                                                                                          SEQ ID NO 64338
LENGTH: 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1847, Application US/10276774 GENERAL INFORMATION:
                                                             Query Match 41.9
Best Local Similarity 50.0
Matches 10; Conservative
                                                                                                                                                                                                       CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
SOFTWARE: PatentIn version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/276,774
CURRENT FILING DATE: 2002-11-18
PRIOR APPLICATION NUMBER: 09/560,875
PRIOR FILING DATE: 2000-04-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Hyseq, Inc.
APPLICANT: Tang, Y, Tom et al
TITLE OF INVENTION: Novel Nucleic Acids and
FILE REFERENCE: 21272-030
                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
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139 MDGDGPRPREAFWEPTSSDE 158
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26 PRASGPTSSEPLV 38
                              1 MDGSGEQPRGG--GPTSSEQ 18
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Pred. No.
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Pred. No. 1.2e+02;
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68;
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